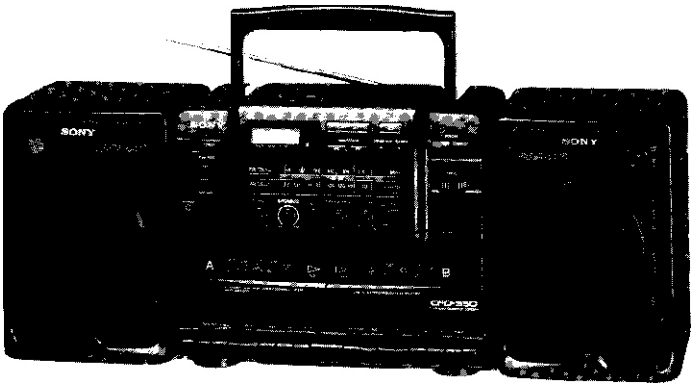
CFD-550

SERVICE MANUAL

Ver 1.1 2002.03

US Model
Canadian Model
AEP Model
E Model
Australian Model



Model Name Using Similar Mechanism	CD Section	NEW
	Tape Section	CFS-W304
Optical Device Type		KSM-212BAN
Tape Transport Mechanism Type		MF-W304-64

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 3.2-ohm loads, both channels driven from 150-10,000 Hz; rated 2.3 W per channel-minimum RMS power, with no more than 10 % total harmonic distortion in AC operation.

Other Specifications

CD player section

System	Compact disc digital audio system
Laser diode properties	Material: GaAlAs Wave length: 780 nm Emission duration: Continuous Laser output: Less than 44.6 µW (This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block.)
Spindle speed	200 r/min (rpm) to 500 r/min (rpm) (CLV)
Error correction	Sony Refined Super Strategy Cross Interleave Reed Solomon Code
Number of channels	2
Frequency response	20–20,000 Hz ± 2 dB
Wow and flutter	Below measurable limit

Radio section

Frequency range	US, Canadian, E, Australian model : FM: 87.6–108 MHz AM: 530–1,710 kHz AEP model : FM : 87.6 - 107MHz AM : 531 - 1,602kHz
Antennas	FM: Telescopic antenna AM: Built-in ferrite bar antenna

Cassette-corder section

Recording system	4-track 2-channel stereo
Frequency response	TYPE I (normal) cassette: 80–10,000 Hz

– Continued on page 2 –

CD RADIO CASSETTE-CORDER

9-959-665-12
2002C0200-1

Sony Corporation
Personal Audio Company

SONY®

General

Speaker	Woofer: 10 cm dia., 3.2 ohms cone type Tweeter: 3 cm
Inputs	Mixing microphone input jack (minijack): US, Canadian, E, Australian model : Sensitivity 1.1 mV AEP model : Sensitivity 2.75mV For low impedance microphone
Outputs	Headphones jack (stereo minijack) For 16–68 ohms impedance headphones Speaker terminals For supplied 3.2 ohms impedance speaker
Power output (excluding USA model)	2.3 W + 2.3 W (at 3.2 ohms, 10% harmonic distortion in DC operation)
Power requirements	US, Canadian, E model : 120 VAC, 60Hz AEP model : 220–230 VAC, 50Hz Australian model : 240 VAC, 50Hz DC 9 V, 6 size D (R20) batteries
Power consumption	AC 20 W
Battery life	For CD radio cassette-corder:

	FM recording	Tape playback	CD playback
Sony SUM-1 (NS)	approx. 15 h	approx. 16 h	approx. 8 h
Sony Alkaline AM1	approx. 40 h	approx. 44 h	approx. 20 h

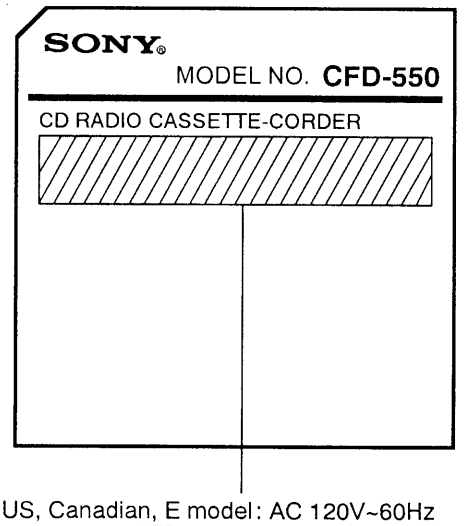
	For remote commander: approx. 6 months
Dimensions	Approx. 637 × 247 × 206 mm (w/h/d) (25⅛ × 9¾ × 8⅛ in.) incl. projecting parts
Mass	6.2 kg (13 lb 11 oz) (incl. batteries)
Supplied accessories	AC power cord (1) Remote commander (1)

Design and specifications subject to change without notice.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

MODEL IDENTIFICATION

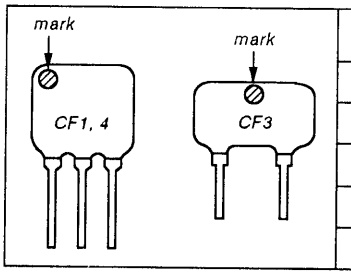
– Model Number Label –



US, Canadian, E model: AC 120V~60Hz
AEP model: AC 220-230V~50Hz
Australian model: AC 240V~50Hz

• HOW TO CHANGED THE CERAMIC FILTERS

This model is used three ceramic filters of CF1, CF3 and CF4. You must used same type of color marked ceramic filters in order to meet same specifications.
Therefore, the ceramic filter must changed three pieces together since it's supply three pieces in one package as a spare parts.



Mark	Center frequency
red	10.70MHz
blue	10.67MHz
orange	10.73MHz
black	10.64MHz
white	10.76MHz

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

WARNING

To prevent fire or shock hazard, do not expose the player to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

DANGER

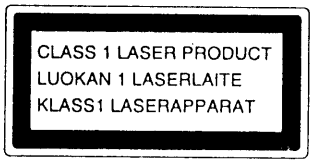
Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Information

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.



This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

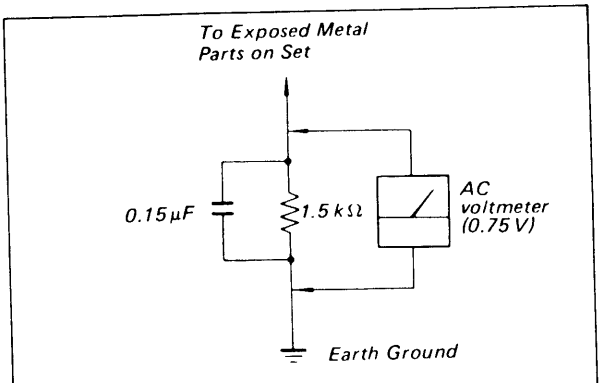


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

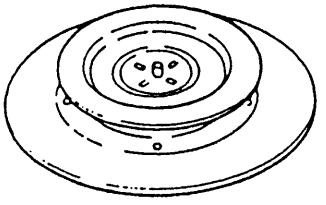
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 25cm away form the objective lens.

CHUCK PLATE JIG ON REPAIRING

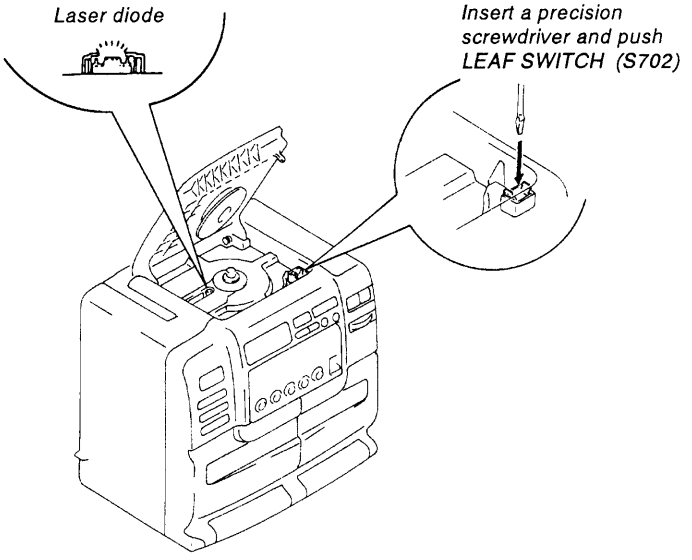
On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.

- Code number of Chuck Plate Jig : X-4918-255-1



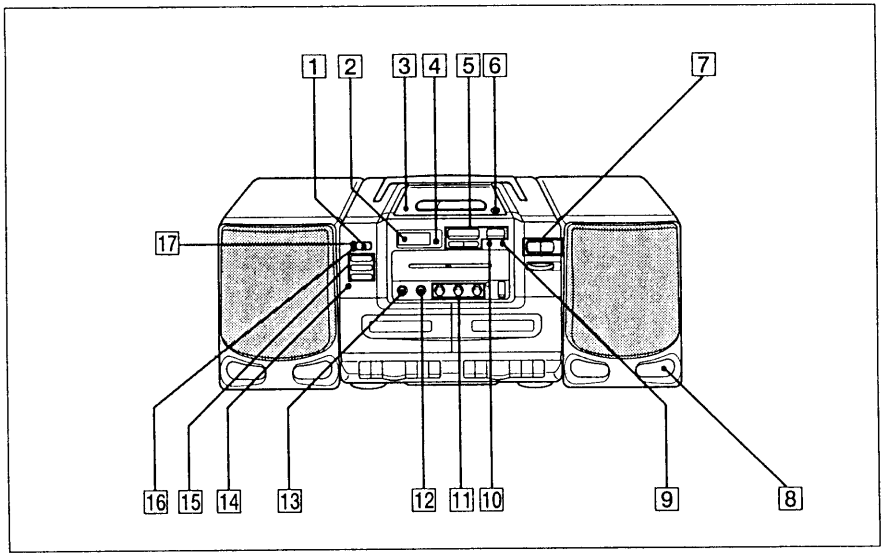
LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Press CD open knob.
2. Open the lid for CD.
3. Push on LEAF SWITCH (S702) as following figure.
4. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
   Objective lens moves up and down once for the focus search.



Looking at the Controls

CD Player



1 POWER switch

2 Display window

3 Disc compartment

4 Remote sensor

5 CD operation buttons
▷II PLAY/PAUSE
□ STOP
I◀◀ /▶▶I AMS*/SEARCH

6 PUSH OPEN button

7 VOLUME buttons

8 Duct
Reproduces bass sound.

9 PLAY MODE button

10 DISPLAY/ENTER button

11 ROTARY EQUALIZER controls

12 MEGA BASS control

13 BALANCE control

14 PHONES (headphones) jack (stereo mini-jack)

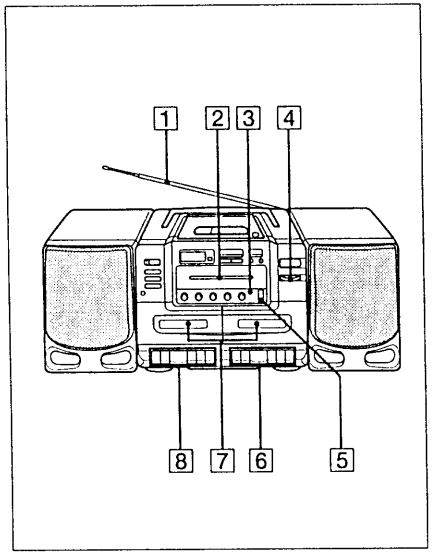
15 FUNCTION buttons
TAPE/DUB: for playing or dubbing a tape
RADIO: for playing or recording a radio programme
CD: for playing or recording a CD

16 POWER STANDBY indicator
Lights up indicate the player is connected to the mains, The indicator lights regardless of whether the power is on or off. (AEP model only)

17 OPR/BATT (operation/battery) indicator

•AMS Automatic Music Sensor

Radio and Tape Player



1 Telescopic aerial

2 Dial scale and pointer

3 FM STEREO indicator

4 TUNING control

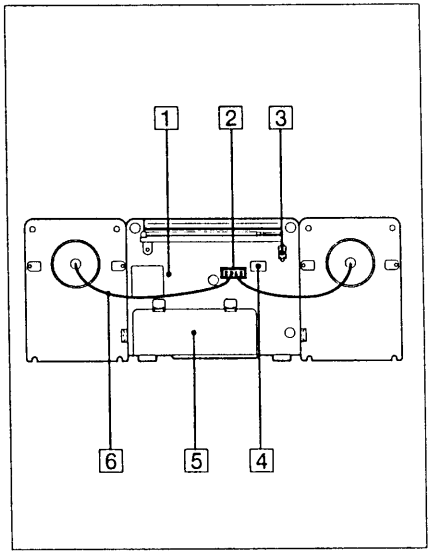
5 BAND selector

6 Tape operation buttons for deck B

7 Cassette compartments

8 Tape operation buttons for deck A

Rear Panel



1 MIX MIC (mixing microphone) jack (mini-jack)

2 SPEAKER OUTPUT terminals

3 AC IN (AC power input) socket
Connect to the mains.

4 FM MODE/ISS switch
(AEP model only)

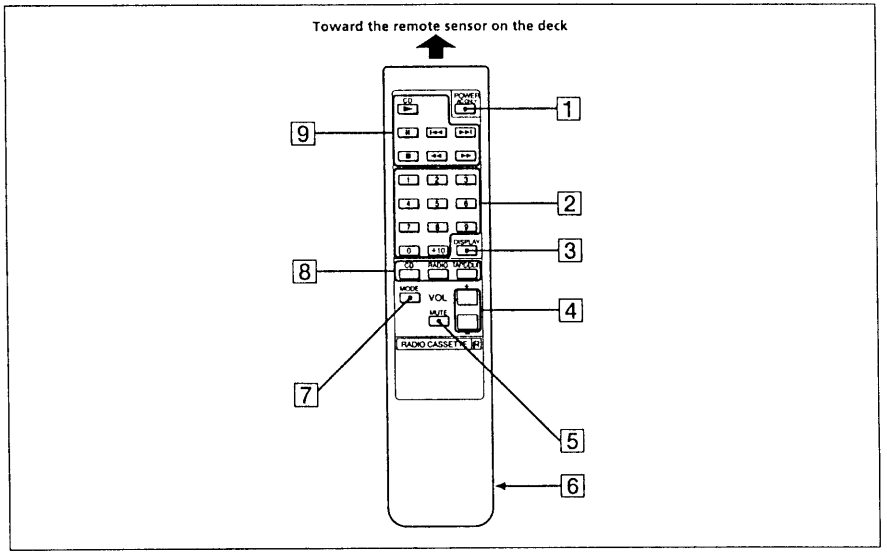
5 Battery compartment

6 Speaker wires

SECTION 2
GENERAL

This section is extracted from instruction manual.

Remote Commander



Controls on the remote commander with the same name as those on the deck have the same function. Some controls such as the number buttons are located only on the remote commander.

1 POWER switch
When you operate the player on batteries, you cannot turn on the power with the remote commander.

2 Number buttons

3 DISPLAY button

4 VOL (volume) buttons

5 MUTE button

6 Battery compartment

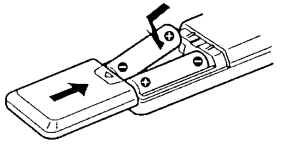
7 MODE button

8 FUNCTION buttons
CD: for playing or recording a CD
RADIO: for playing or recording a radio programme
TAPE/DUB: for playing or dubbing a tape

9 CD operation buttons
► (play)
II (pause)
I◄◄ / ►►I (AMS)
■ (stop)
◄◄ (search)
►► (search)

Installing batteries

Insert two R6 (size AA) batteries (not supplied) into the battery compartment.

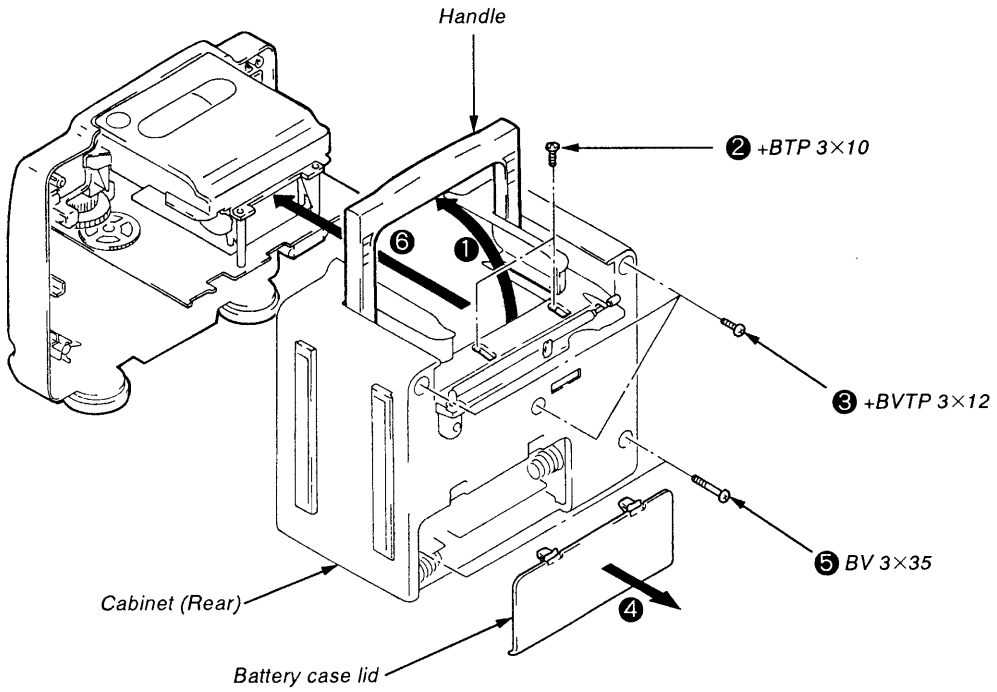


To avoid malfunction, keep the commander away from direct sunlight or strong illumination.

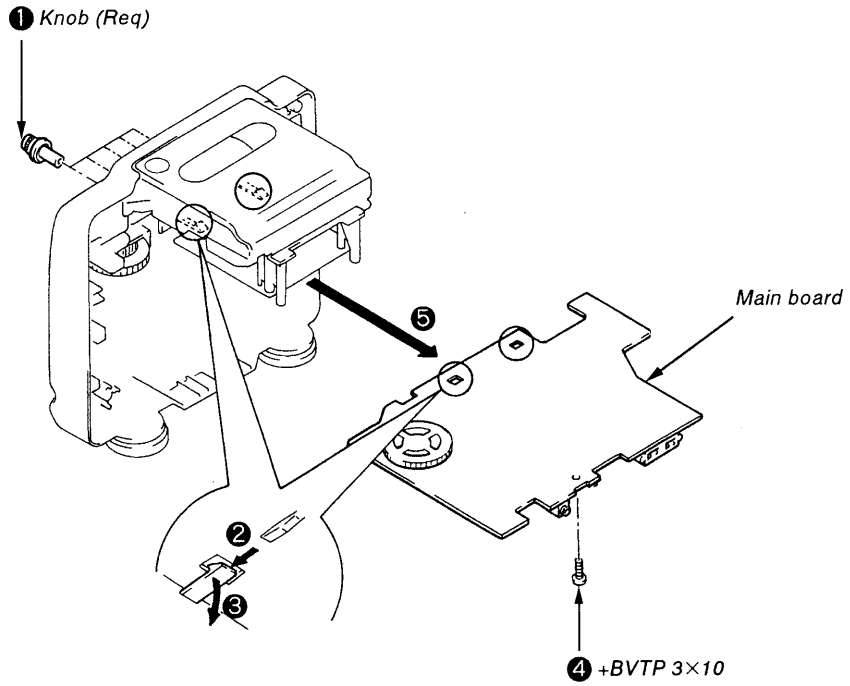
SECTION 3
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

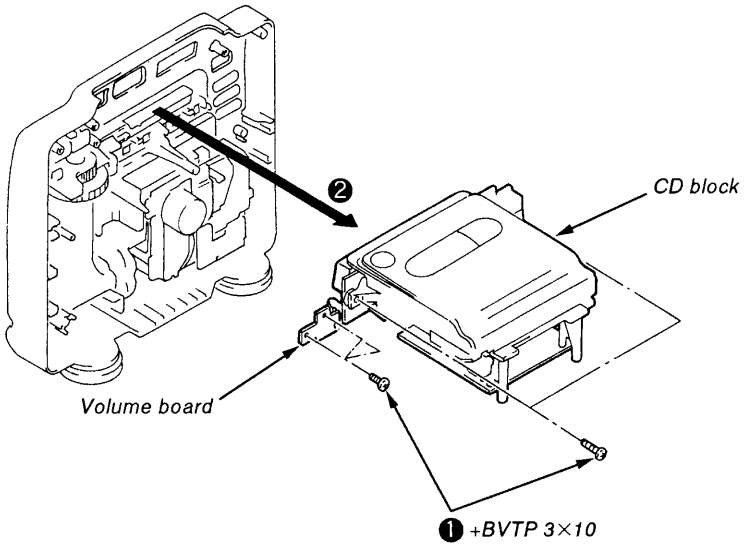
3-1. CABINET (REAR) REMOVAL



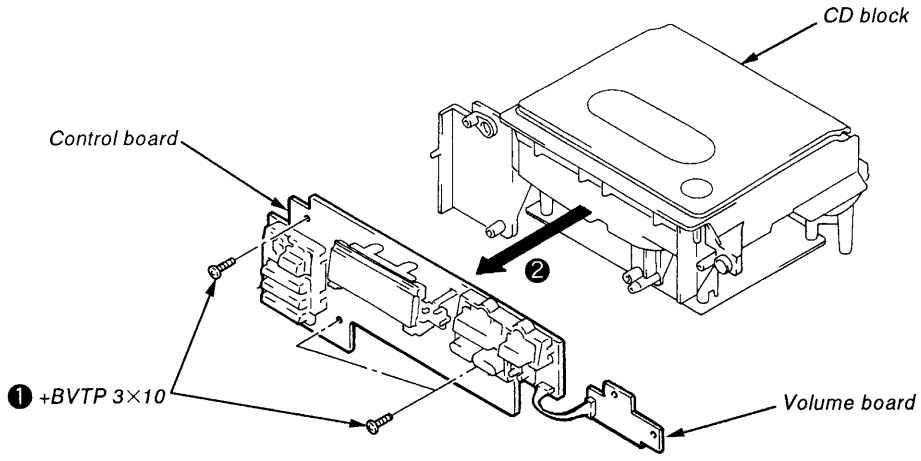
3-2. MAIN BOARD REMOVAL



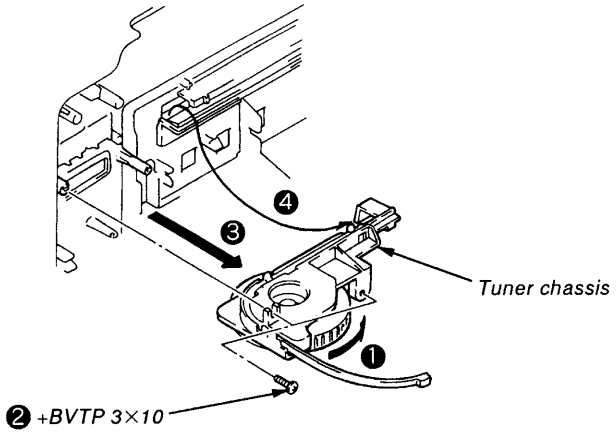
3-3. CD BLOCK, VOLUME BOARD REMOVAL



3-4. CONTROL BOARD REMOVAL



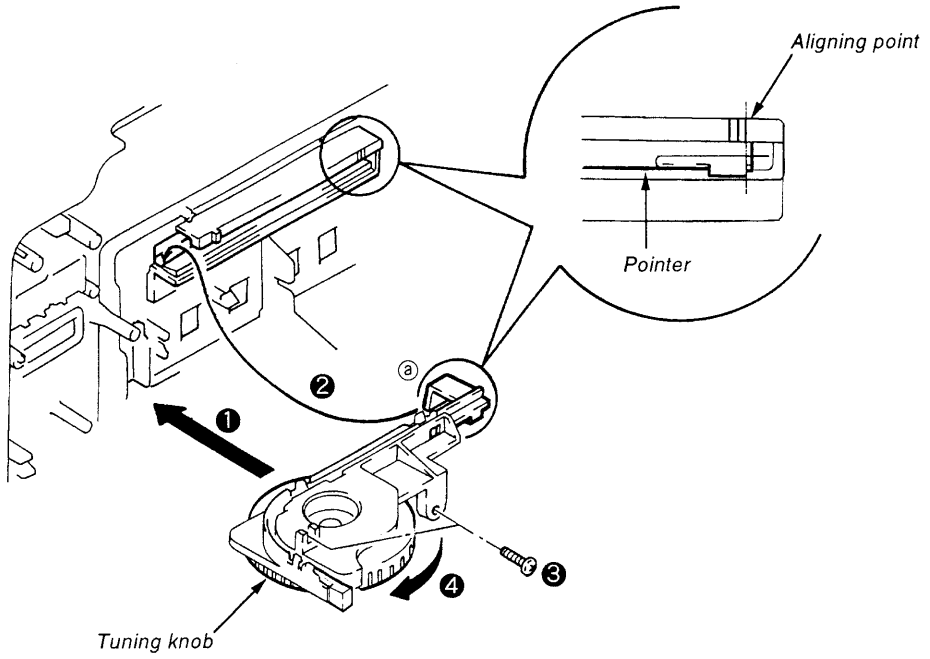
3-5. TUNER CHASSIS REMOVAL



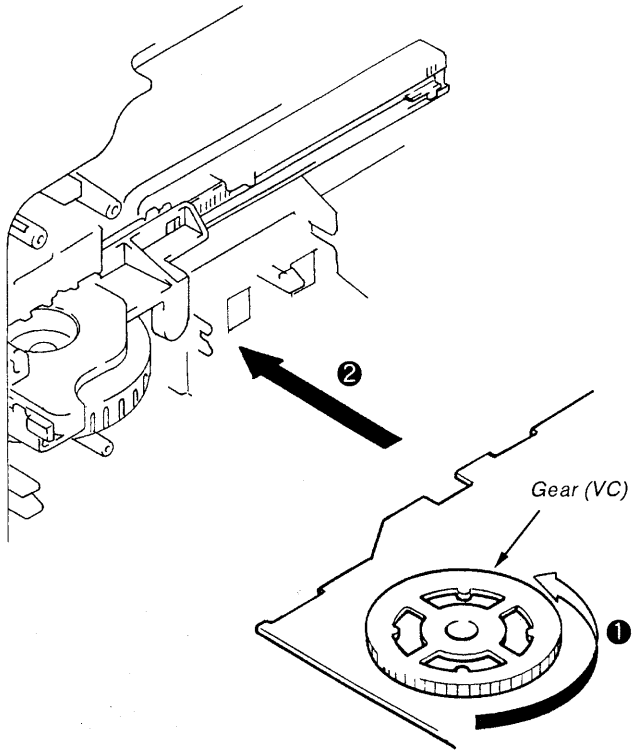
SECTION 4
DIAL POINTER INSTALLATION

Note : Follow the installation procedure in the numerical order given.

- Insert part ⓐ of the pointer in the groove, turn the tuning knob in the direction of the arrow and align the pointer with the alignment point.



- Gear (VC) fully to arrow direction.



SECTION 5
ADJUSTMENTS

5-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :
   record/playback head　pinch roller
   erase head　rubber belts
   capstan　idlers
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

1. Torque Measurement

Mode	Torque Meter	Meter Reading
Playback	CQ-102C	22.5 – 55g•cm (0.32 – 0.76 oz•inch)
Back tension	CQ-102C	2 – 5g•cm (0.03 – 0.06 oz•inch)
Rewind	CQ-201B	60 – 120g•cm (0.84 – 1.66 oz•inch)
Fast Forward		

2. Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 150g (5.30 oz)

5-2. ELECTRICAL ADJUSTMENTS

TAPE SECTION

1. The adjustments should be performed in the order given in the service manual. (As a general rule. playback circuit adjustment should be completed before performing recording circuit adjustment.)
2. The adjustments should be performed for both L-CH and R-CH unless otherwise indicated.

- Switch location
  FUNCTION ····· TAPE (RADIO OFF)
  ROTARY EQUALIZER ·· center click
  BALANCE ····· center click
  VOLUME ····· MAX
  MEGA BASS ····· mechanical center

Standard Input Level

	MIC
source impedance	300 Ω
input level	2.75mV (– 49dB)

Standard Output Level

	SP OUT	PHONES
load impedance	3.2 Ω	32 Ω
output level	0.775V(0dB)	0.25V(– 10dB)

Test Tape

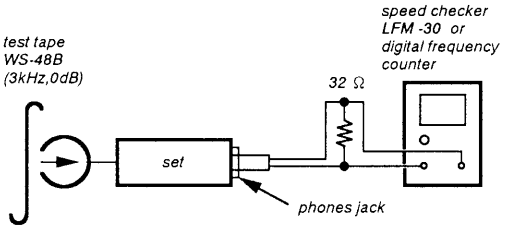
Type	Signal	Used for
WS-48B	3kHz, 0dB	Tape Speed Adjustment

0 dB=0.775V

Tape Speed Adjustment

Procedure :

Mode : playback



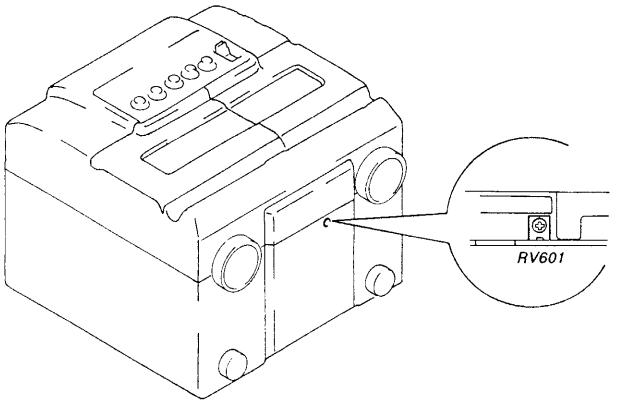
Adjustment Values :

Speed checker	Digital frequency counter
± 0.5%	2,985 to 3,015Hz

Frequency difference between the beginning and the end of the tape should be within 1.5% (45Hz).

Note : (High speed : non adjustment)

Adjustment Location : TC LEAF board



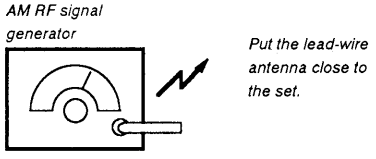
TUNER SECTION

- Switch location

FUNCTION ····· RADIO
VOLUME ····· MAX
BALANCE ····· center click
MEGA BASS ····· mechanical center
ROTARY EQUALIZER ·· center click

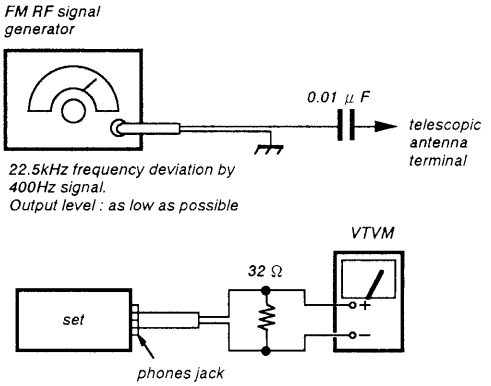
AM Section

BAND : AM



FM Section

BAND : FM



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

no mark : US, Canadian, E, Australian model
( ) : AEP model

AM IF ALIGNMENT	
Adjust for a maximum reading on VTVM.	
T1	455kHz (455kHz)

AM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L4	520kHz (520kHz)
CT4	1,780kHz (1,680kHz)

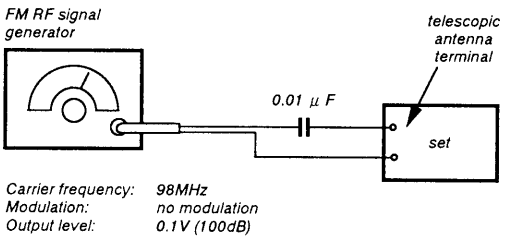
AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L3	600kHz (600kHz)
CT3	1,500kHz (1,400kHz)

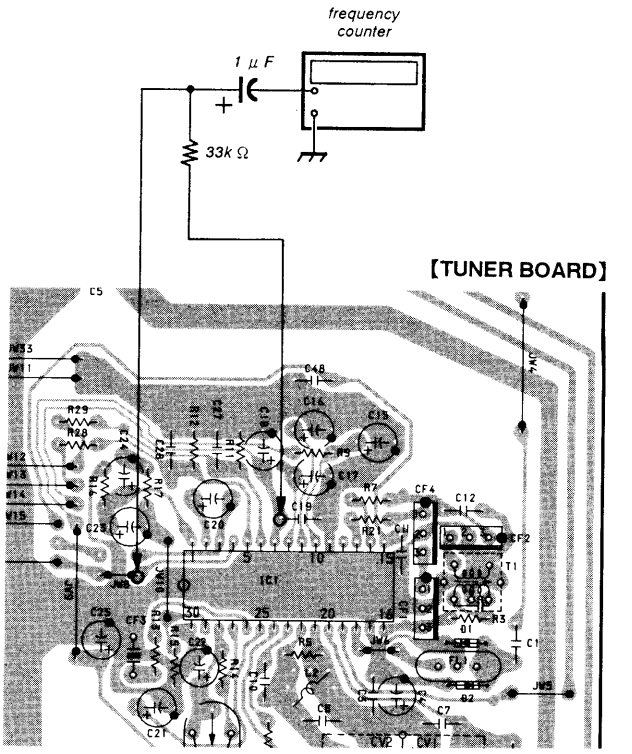
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L2	86.5MHz (87.0MHz)
CT2	109.5MHz (108.3MHz)

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L1	86.5MHz (87.0MHz)
CT1	109.5MHz (108.3MHz)

VCO Adjustment

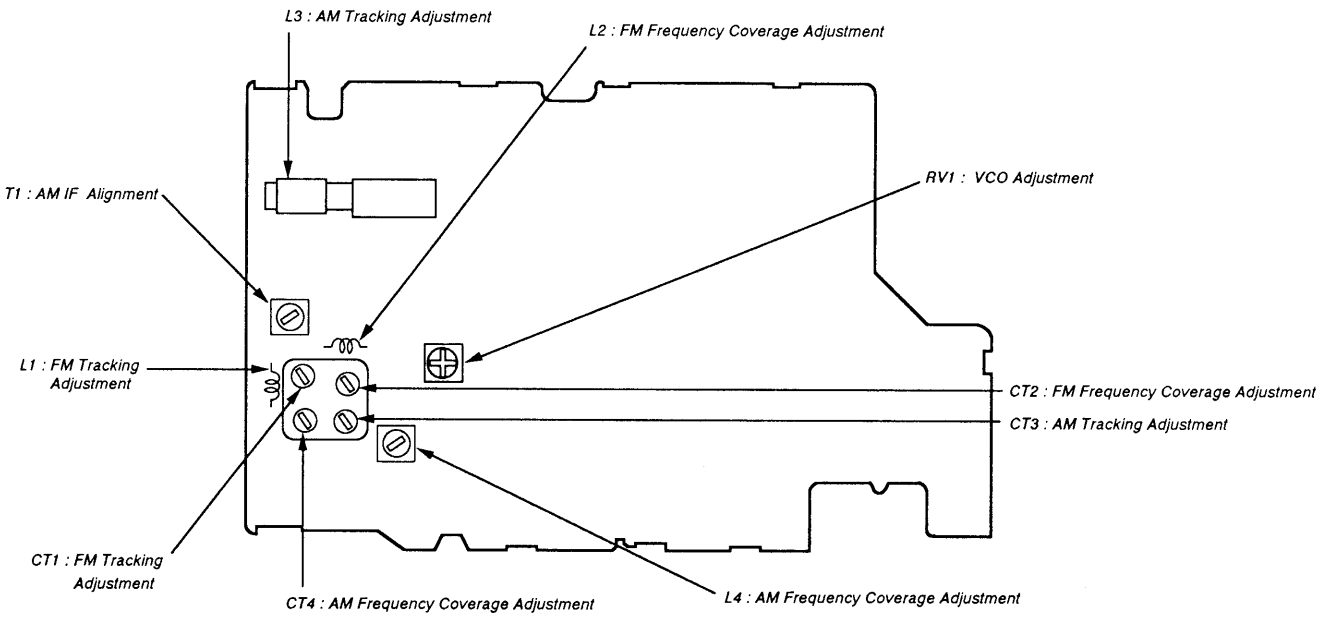
procedure :





1. Connect the frequency counter to ④ and ⑦ pins of IC1 as shown the figure below.
2. Turn the set to 98MHz.
3. Adjust RV1 for 76kHz ± 500Hz reading on frequency counter.

Adjustment Location : Main board (Component side)


L3 : AM Tracking Adjustment
L2 : FM Frequency Coverage Adjustment
T1 : AM IF Alignment
RV1 : VCO Adjustment
L1 : FM Tracking Adjustment
CT2 : FM Frequency Coverage Adjustment
CT3 : AM Tracking Adjustment
CT1 : FM Tracking Adjustment
CT4 : AM Frequency Coverage Adjustment
L4 : AM Frequency Coverage Adjustment

CD SECTION

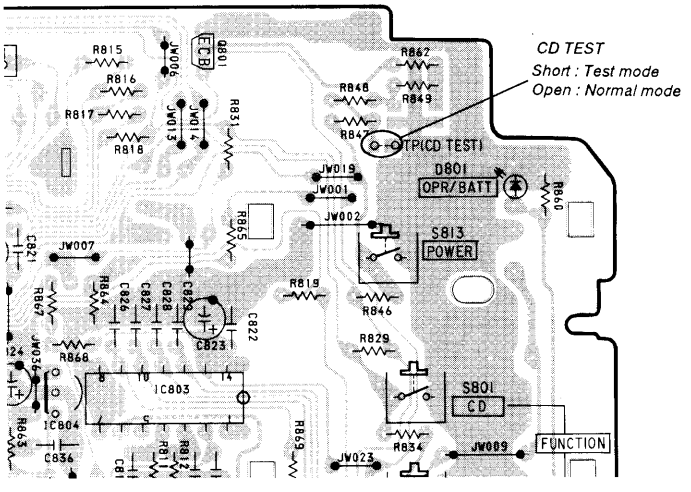
Note on Adjustment

1. Perform adjustment in test mode.
   After adjustment, be sure to release test mode.
2. Perform adjustments in the order given.
3. Use the disc (YEDS-18. Part No. 3-702-101-01) only when so indicated.

How to Put the Set into Test Mode

1. Short-circuit between TP (CD TEST) short on the control board.
2. Turn the POWER on.
3. LCD801 indicator blinks the test mode pattern.
   (Open the short-circuit to release test mode.)

[CONTROL BOARD]



Before adjustment

Put the set into test mode and perform the following checks. Repair if there are any problems.

- **Sled Motor Check**

1. press ▷II key, then press OFF button.
2. Press ⏭, ⏮ keys and confirm that the Optical pick-up moves smoothly from the innermost to outermost circumference and back smoothly and with no catching or abnormal noises. (Cancellation of BTL mute)
   ⏭ : Optical pick-up moves to the outer circumference
   ⏮ : Optical pick-up moves to the inner circumference

- **Focus Search Check**

1. Press ▷II key. (Focus search operation is performed continuously.)
2. Look at the Optical pick-up objective lens and confirm that it moves up and down smoothly, with no catching or abnormal noises.
3. Press □ button.
   Confirm that focus search operation stops. If it does not , press □ button again longer.

Note : When the malfunction is occurred by mis-passing other keys, turn off the power and check again from making the test mode.

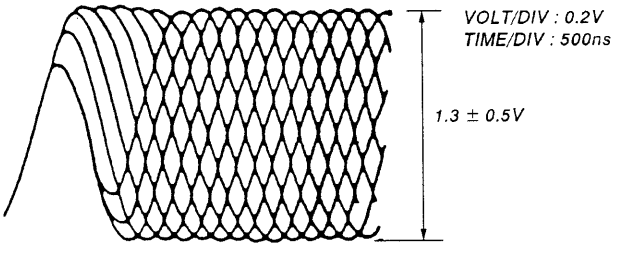
Focus Bias Adjustment

This adjustment is to be done when the optical block is replaced.

Adjustment procedure :

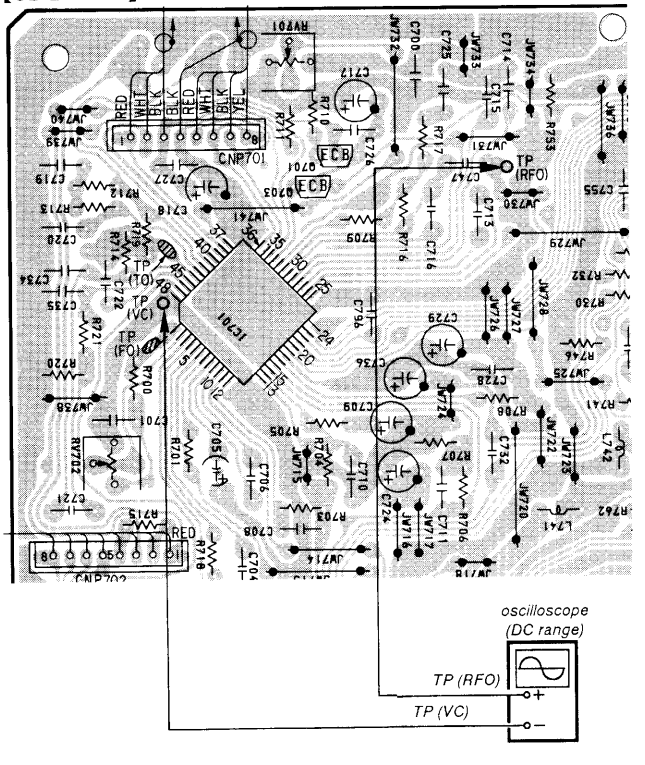
1. Connect oscilloscope to test point TP (VC) and TP (RFO) on main board.
2. Put the set into test mode.
3. Optical pick-up setting to the center by ⏭ or ⏮ button pushing.
4. Put disc (YEDS-18) in and press the ▷II button.
5. Press the DISPLAY/ENTER button.(Tracking servo ON)
6. Adjust RV701 so that the oscilloscope waveform is as shown in the figure below (eye pattern).
   A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.
7. Release test mode after adjustment is completed.

- RF signal reference waveform (eye pattern)



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

[CD BOARD]



Focus Gain Adjustment

A frequency responce analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

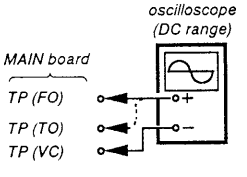
- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

Symptoms \ Gain	Focus	Tracking
• The time until music starts becomes longer for STOP → ▷ PLAY or automatic selection. (⏮, ⏭ buttons pressed.) (Normally takes about 2 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP →▷ PLAY or automatic selection. (⏮, ⏭ buttons pressed.)	–	low
• Sound is interrupted during PLAY. Or time counter display stops progressing.	–	low
• More noise during 2-axis device operation.	high	high

The following is a simple adjustment method.

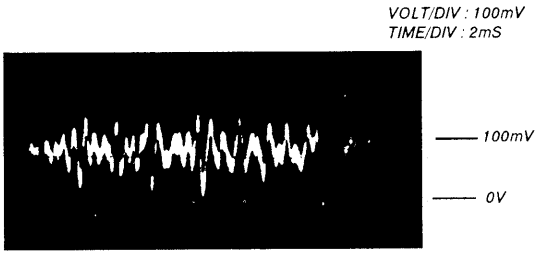
– Primary Adjustment –

Note : Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment.If the positions after the primary adjustment are only a little different, return the controls to the original position.

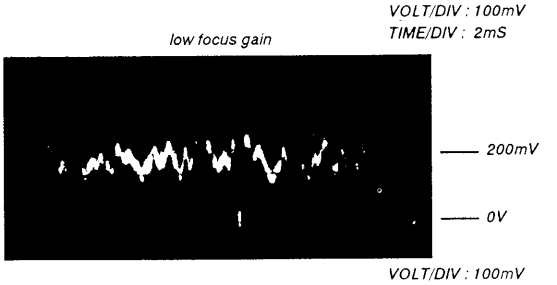


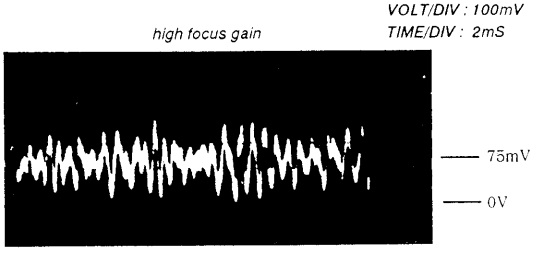
Procedure :

1. Keep the set horizontal.
   (If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.)
2. Insert disc (YEDS-18) and press ⏯ button.
3. Connect oscilloscope to TP(FO) and TP (VC) on MAIN board.
4. Adjustment RV702 on digital board so that the waveform is as shown in the figure below. (focus gain adjustment)

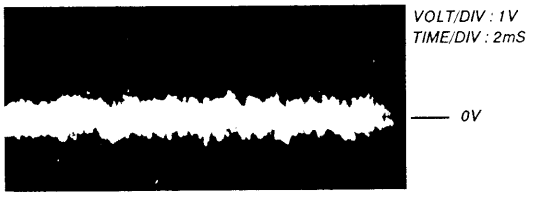


- Incorrent Examples (DC level changes more than on adjusted waveform)

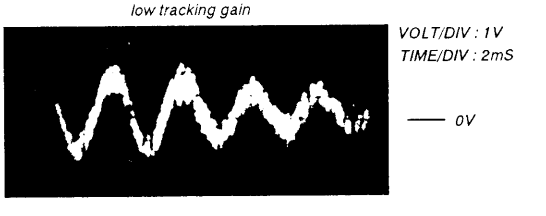


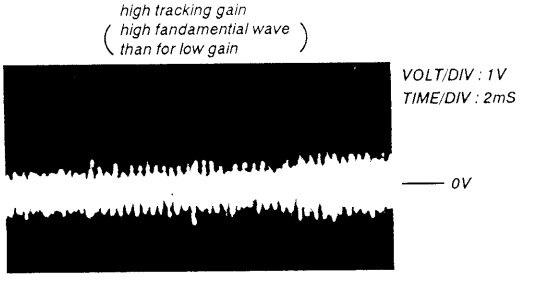


5. Connect oscilloscope to TP(TO) and TP(VC) on MAIN board.
6. Confirm that the waveform is as shown in the figure below.

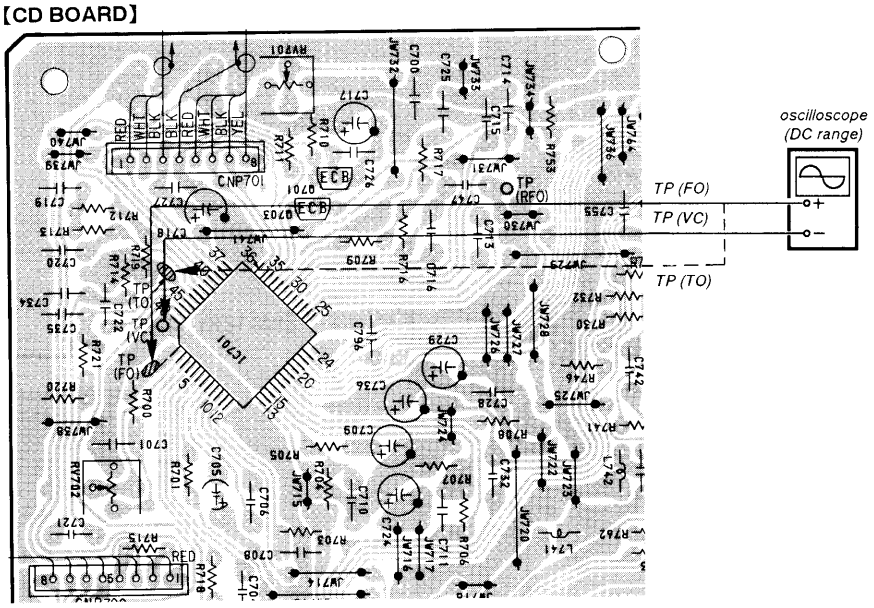


- Incorrect Examples (fundamential wave appears)

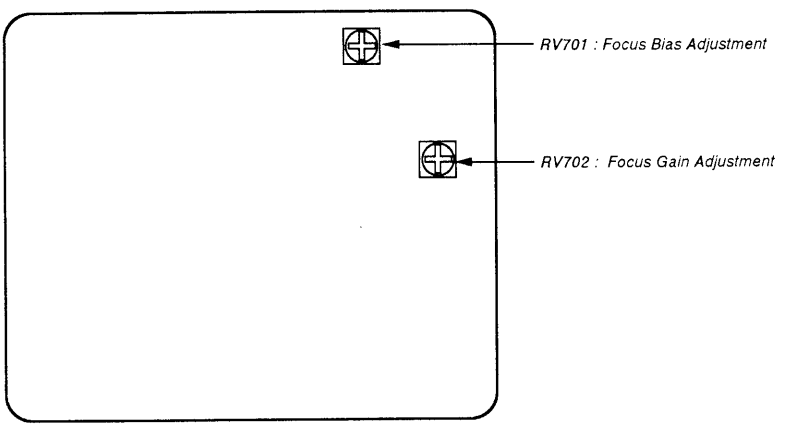




【CD BOARD】



Adjustment Location : CD board (Component side)



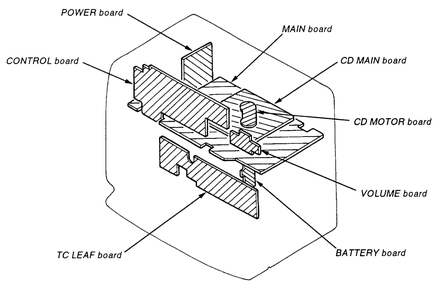
SECTION 6
EXPLANATION OF IC TERMINALS

IC801 MSM65352B-015GS-VK

Pin No.	Pin name	I/O	Description
1	CD-SENSE	I	CD SENSE input terminal. (GND connected for this unit)
2	CD-SLED	I	CD SLED input terminal. (GND connected for this unit)
3	CD-XRST	O	CD reset output terminal.
4	CD-SCOR	I	CD SCOR input terminal.
5	V-DATA	O	D/A data output terminal.
6	V-CLK	O	D/A CLK output terminal.
7	V-CE	O	D/A CE output terminal.
8	COUN OUT	O	Power key output terminal.
9	OSC0	O	System clock OSC. (4.19MHz)
10	$\overline{\text{OSC1}}$	I	System clock OSC. (4.19MHz)
11	D-GND	–	Digital power supply. (GND)
12	$\overline{\text{XT}}$	I	XT side OSC. (32.768kHz)
13	XT	O	XT side OSC. (32.768kHz)
14	$\overline{\text{RESET}}$	I	System reset terminal.
15	A-GND	–	Analog power supply. (GND)
16	WP	I	
17	REC	I	Record signal input terminal.
18	CD-DOOR	I	CD door close input.
19	AI4	I	Single/double deck select terminal. Single : H, Double : L
20	AI3	I	TEST1, TEST2, TEST3 terminal.
21	AI2	I	Volume (+), Volume (−), PLAY MODE, DISPLAY/ENTER.
22	AI1	I	□, ▷II, ⏮, ⏭
23	AI0	I	CD, RADIO, TAPE.
24	A 5V	–	A/D converter section power supply. (+5V)
25	V_{DD} 3	–	LCD Bias.
26	V_{DD} 1	–	LCD Bias.
27	V_{DD} 2	–	LCD Bias.
28	V_{DD} L	–	LCD Bias GND. (Not used)
29 – 32	COM 1 – 4	O	LCD Common drive.
33 – 52	SEG0 – 19	O	LCD Segment drive.
53	P-CON	O	System power ON signal output terminal.
54	A-MUTE	O	Audio mute output terminal.
55	GFS	I	CD GFS signal input terminal.
56	——	–	Not used.
57	CD-SQSO	I	CD SUB Q signal input terminal.
58	CD-SQCK	I	CD SUB Q clock input terminal.
59	REMOCON	I	Remote control signal input terminal.
60	CD-LATCH	O	CD LATCH output terminal.
61	CD-DATA	O	CD data output terminal.
62	CD-CLOCK	O	CD clock output terminal.
63	CD-MUTE	O	CD mute output terminal.
64	D 5V	O	Digital power supply. (+5V)

SECTION 7
DIAGRAMS

• CIRCUIT BOARD LOCATION



• SEMICONDUCTOR LEAD LAYOUTS

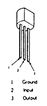
LA4597

2SB1013-4
2SC1815-GR

2SK105A-30

GL3PR8

PST572D
S-81250PG



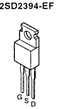
2SC2785-HFE

RD5.6ES-B2
RD6.8ES-B2
1SS119
1SS133

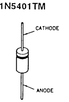
SLZ-190B-06-T1
SLZ-190B-10-T1

DTA114YS
DTC143TS
DTC144WS
RN1202
RN1207
RN1210
RN2202

2SD2394-EF



1N5401TM



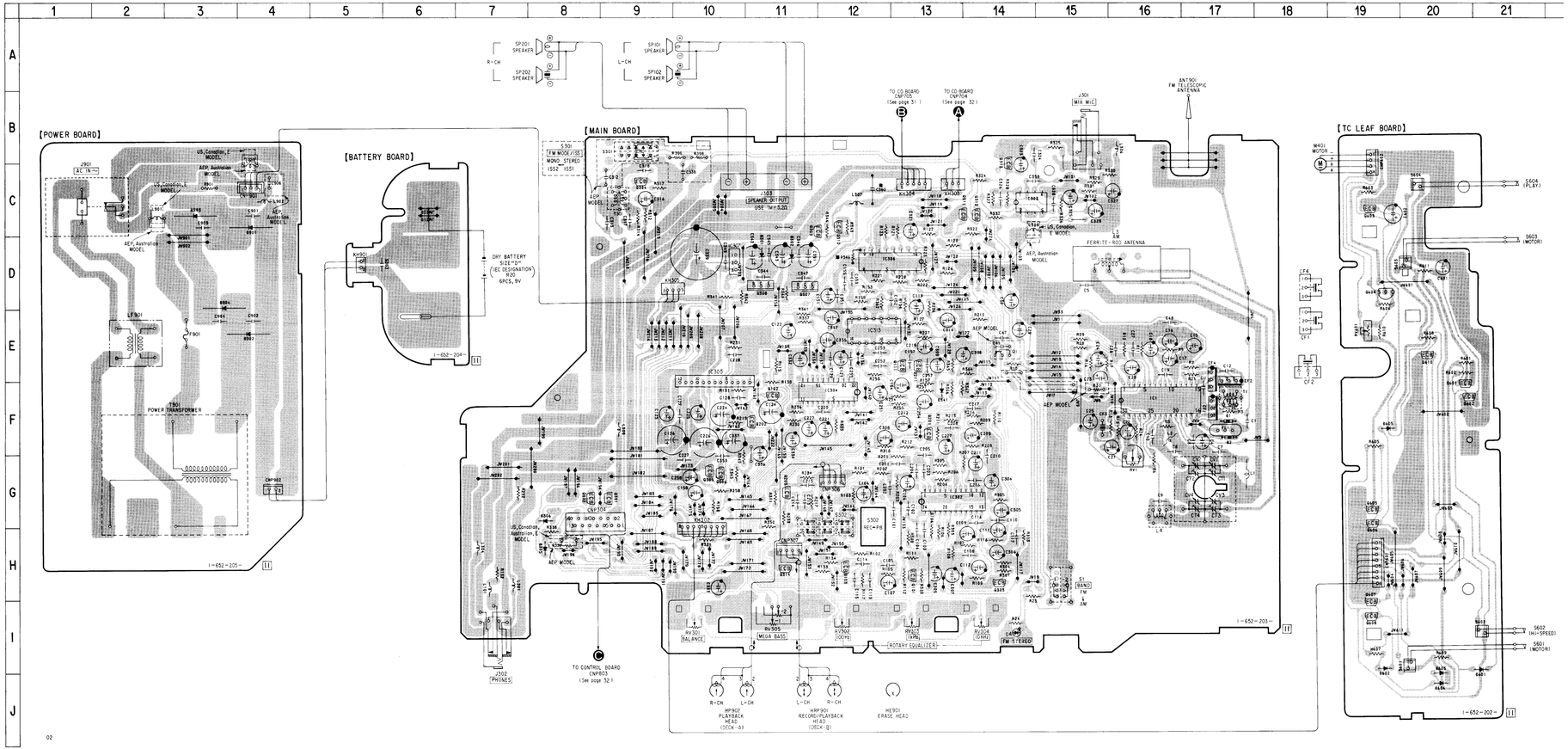
• SEMICONDUCTOR LOCATION

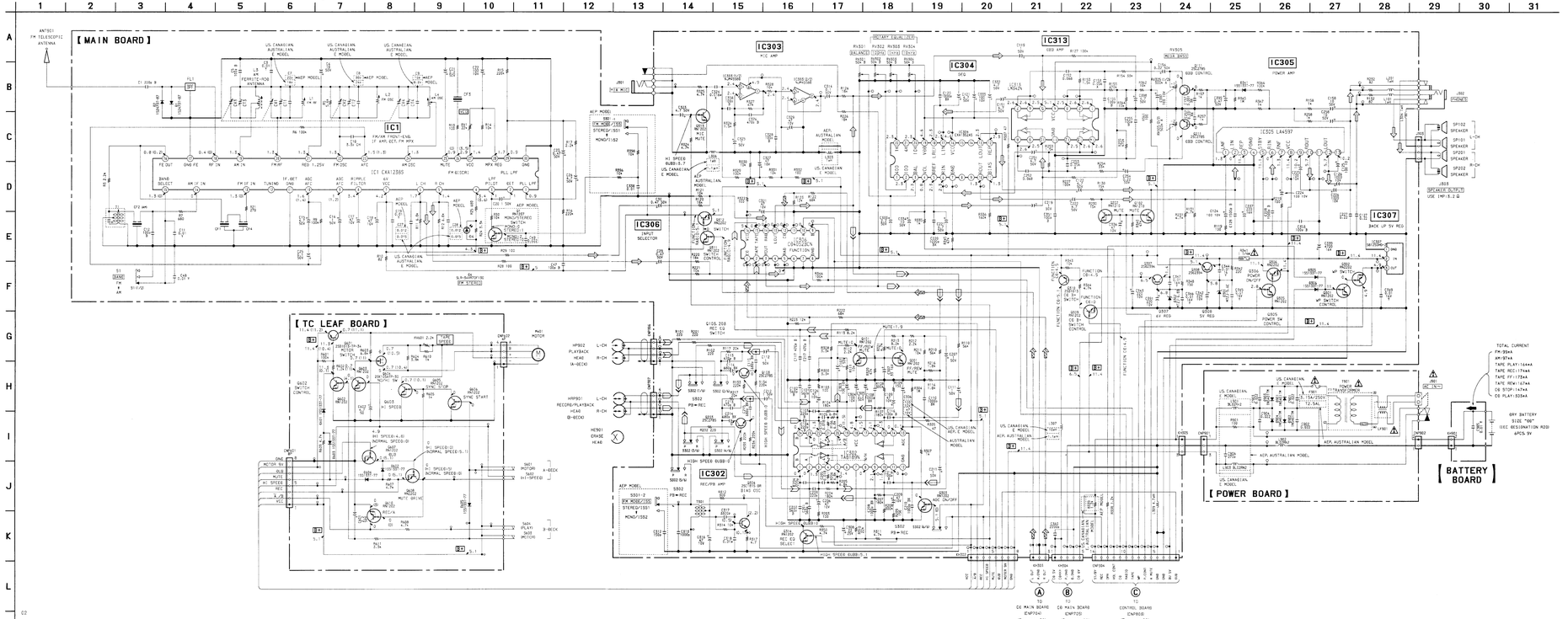
Ref. No.	Location
D1	F - 17
D2	F - 17
D4	I - 14
D301	D - 11
D302	D - 11
D305	H - 8
D306	G - 8
D341	F - 13
D601	I - 21
D602	I - 19
D603	J - 20
D604	J - 20
D605	F - 19
D901	C - 4
D902	E - 4
D903	C - 3
D904	D - 3
IC1	F - 16
IC302	G - 13
IC303	C - 14
IC304	F - 12
IC305	E - 10
IC308	D - 12
IC307	D - 10
IC313	E - 12
Q1	E - 14
Q101	H - 13
Q102	F - 11
Q103	H - 12
Q111	E - 13
Q201	F - 13
Q202	F - 11
Q203	G - 11
Q211	E - 13
Q301	G - 9
Q302	G - 8
Q303	H - 14
Q304	C - 9
Q305	G - 10
Q306	G - 10
Q307	D - 11
Q308	D - 11
Q309	C - 12
Q310	C - 12
Q311	C - 14
Q312	C - 14
Q313	B - 14
Q314	H - 11
Q601	F - 20
Q602	F - 20
Q603	C - 19
Q604	D - 19
Q605	G - 19
Q606	G - 19
Q607	I - 19
Q608	I - 19
Q610	E - 20

Note:

- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ▒▒ : Pattern on the side which is seen.

7-1. PRINTED WIRING BOARDS (MAIN SECTION)





Note :

- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : Internal component.

Note :	Note :
The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

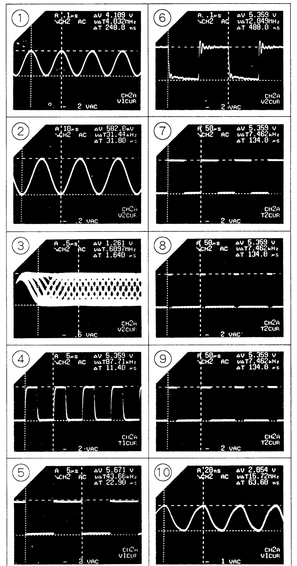
- B+ B+ Line
- adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  - no mark : FM (RADIO SECTION)
  - ( ) : AM (RADIO SECTION)
  - no mark : PLAYBACK (AUDIO SECTION)
  - ( ) : REC (AUDIO SECTION)
  - no mark : STOP (CD SECTION)
  - ( ) : PLAYBACK (CD SECTION)
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM, ⇨ : PB, ⇨ : CD, ⇨ : REC

7-3. SCHEMATIC DIAGRAM (CD SECTION)

• Refer to page 24 for Note.

• Refer to page 34 for IC Block Diagrams.

• WAVEFORMS



【 CD MAIN BOARD 】

【 CONTROL BOARD 】

【 VOLUME BOARD 】

【 CD MOTOR BOARD 】

OPTICAL PICK-UP BLOCK (KSM-212B)

IC701 CD DSP/SERVO PROCESSOR

IC702 CD DIGITAL SIGNAL PROCESSOR

IC703 SLED/SPINDLE MOTOR DRIVE

IC704 D/A CONVERTER

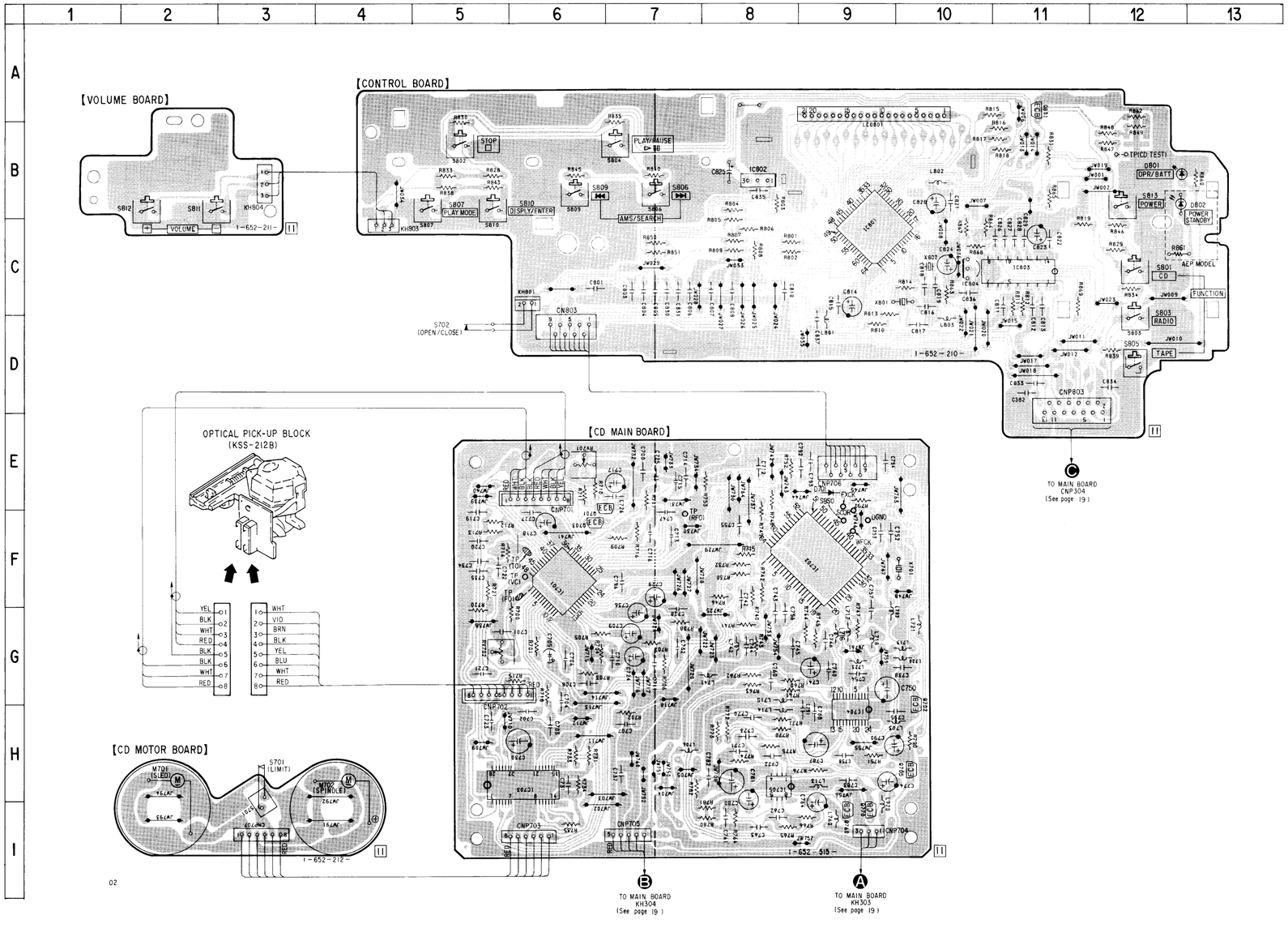
IC705 AMP

IC801 MICROPROCESSOR SYSTEM CONTROL

IC802 REMOTE CONTROL RECEIVER

IC803 MULTI D/A CONVERTER

IC804 RESET



● SEMICONDUCTOR LOCATION

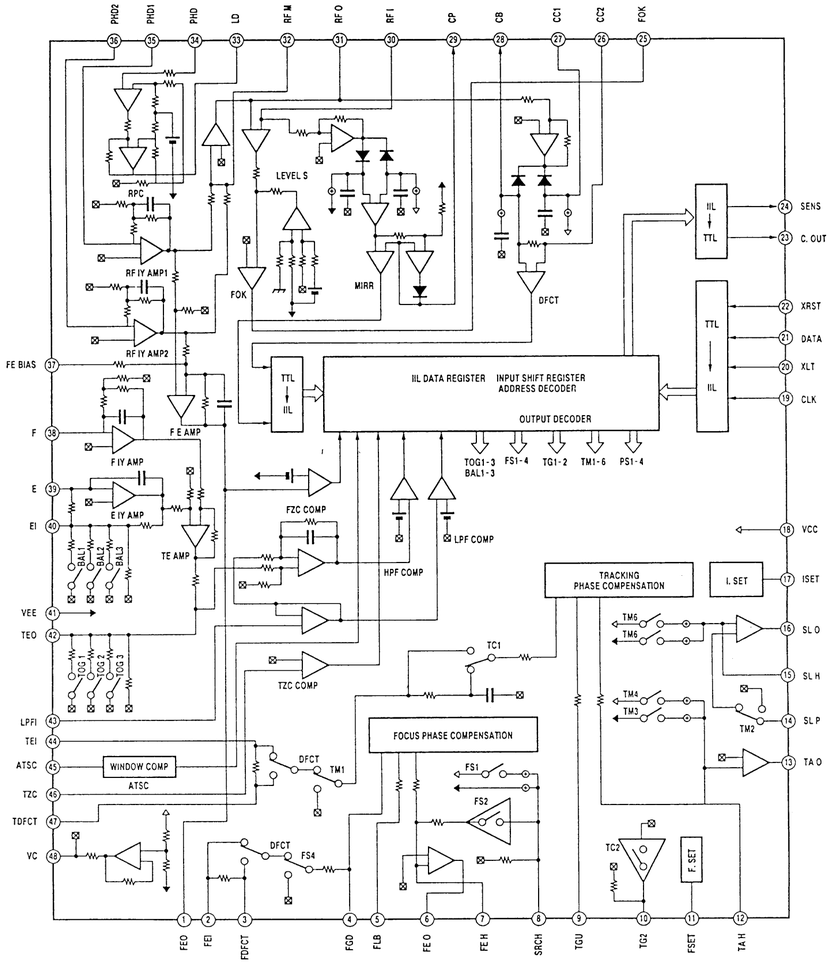
Ref. No.	Location
D701	E - 9
D801	B - 12
D802	B - 12
IC701	F - 6
IC702	F - 9
IC703	H - 6
IC704	H - 9
IC705	H - 8
IC801	C - 9
IC802	B - 8
IC803	C - 11
IC804	C - 10
Q701	F - 6
Q702	H - 10
Q703	F - 6
Q705	H - 10
Q760	I - 9
Q770	I - 9
Q801	A - 11

Note:

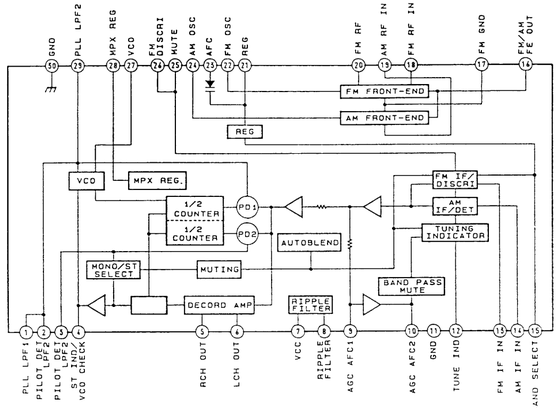
- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ▨ : Pattern on the side which is seen.

• IC BLOCK DIAGRAMS

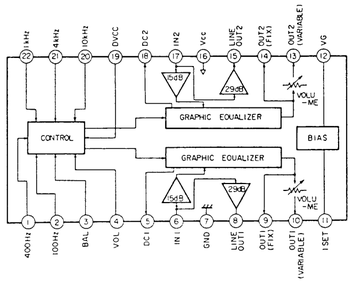
IC701 CXA1782BQ



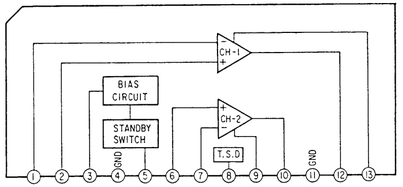
IC1 CXA1238S



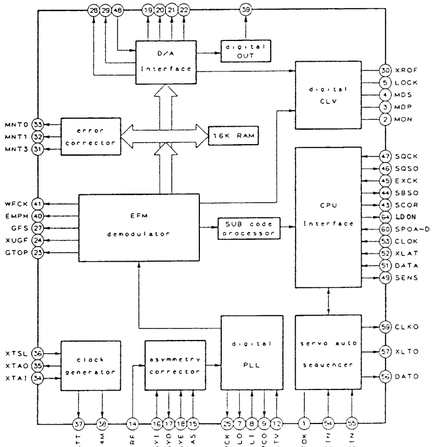
IC304 CXA1352AS



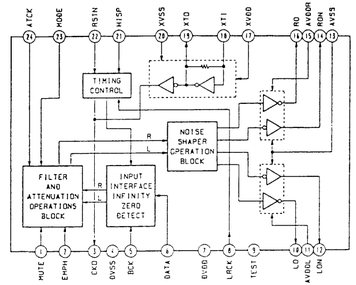
IC305 LA4597



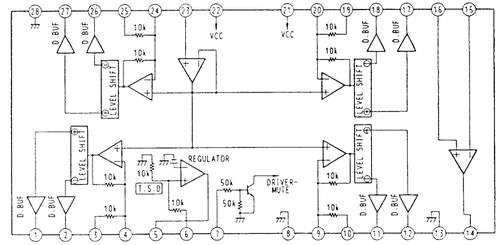
IC702 CXD2517Q



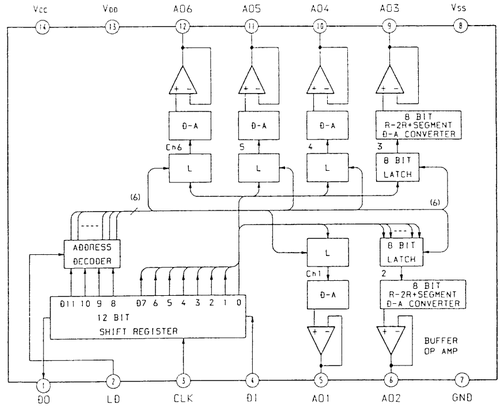
IC704 SM5874AM1



IC703 BA6296FP



IC803 M62354P



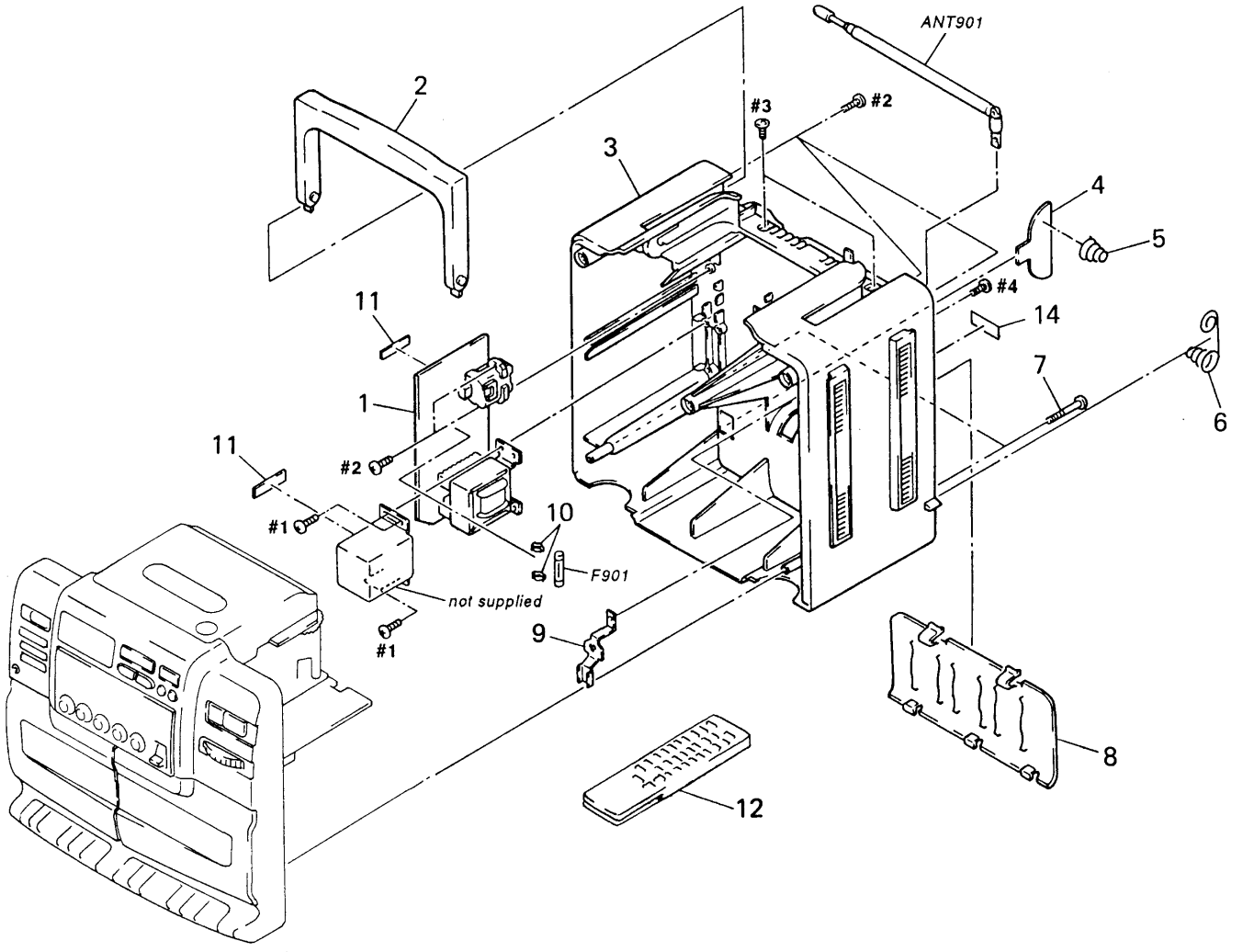
SECTION 8
EXPLODED VIEWS

NOTE :
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Abbreviation
  AUS : Australian
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

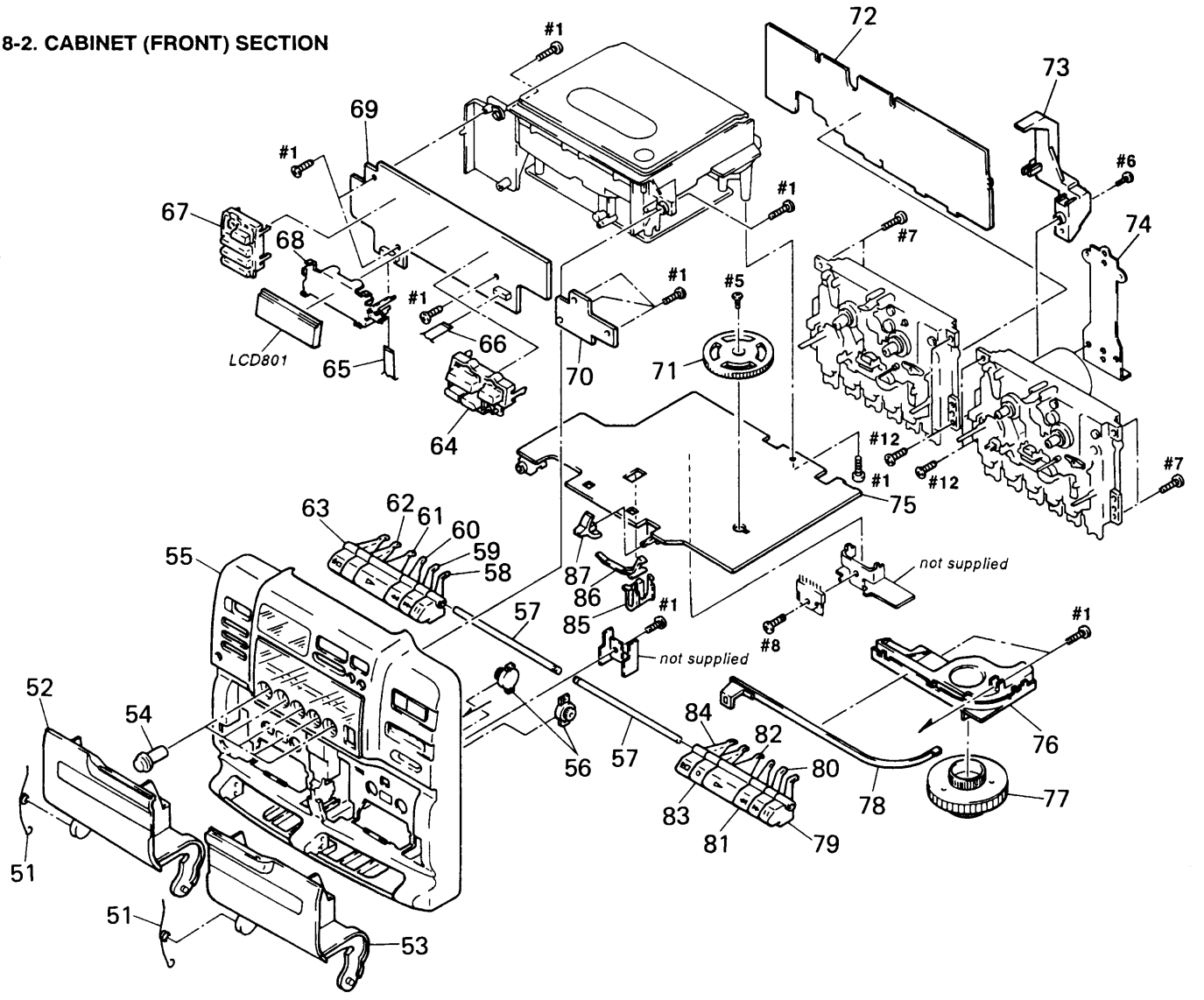
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

8-1. CABINET (REAR) SECTION



Ref. No.	Part No.	Description	Remark
1	1-533-233-11	HOLDER, FUSE	
2	X-3368-180-1	HANDLE ASSY	
* 3	3-912-339-31	CABINET (REAR) (US, E)	
* 3	3-912-339-71	CABINET (REAR) (AEP)	
* 3	3-912-340-11	CABINET (REAR) (Canadian, AUS)	
* 4	1-652-204-11	BATTERY BOARD	
5	3-912-376-01	SPRING (BATT)	
6	3-379-412-11	TERMINAL (+ -), BATTERY (E)	
7	3-913-413-01	SCREW (BV 3X35)	
8	3-913-758-01	LID, BATTERY CASE	
9	3-912-368-01	TERMINAL (ANT)	
* 10	1-652-205-11	POWER BOARD	
* 11	3-376-847-01	CUSHION, SARANET	
12	1-467-786-11	COMMANDER, STANDARD (RMT-C550)	
* 14	4-941-548-01	LABEL, CLASS (1) (AEP)	
ANT901	1-501-383-21	ANTENNA, TELESCOPIC	
⚠F901	1-576-107-11	FUSE (3.15A/250V) (US, Canadian, E)	
⚠F901	1-532-286-00	FUSE (T2.5AL) (AEP, AUS)	

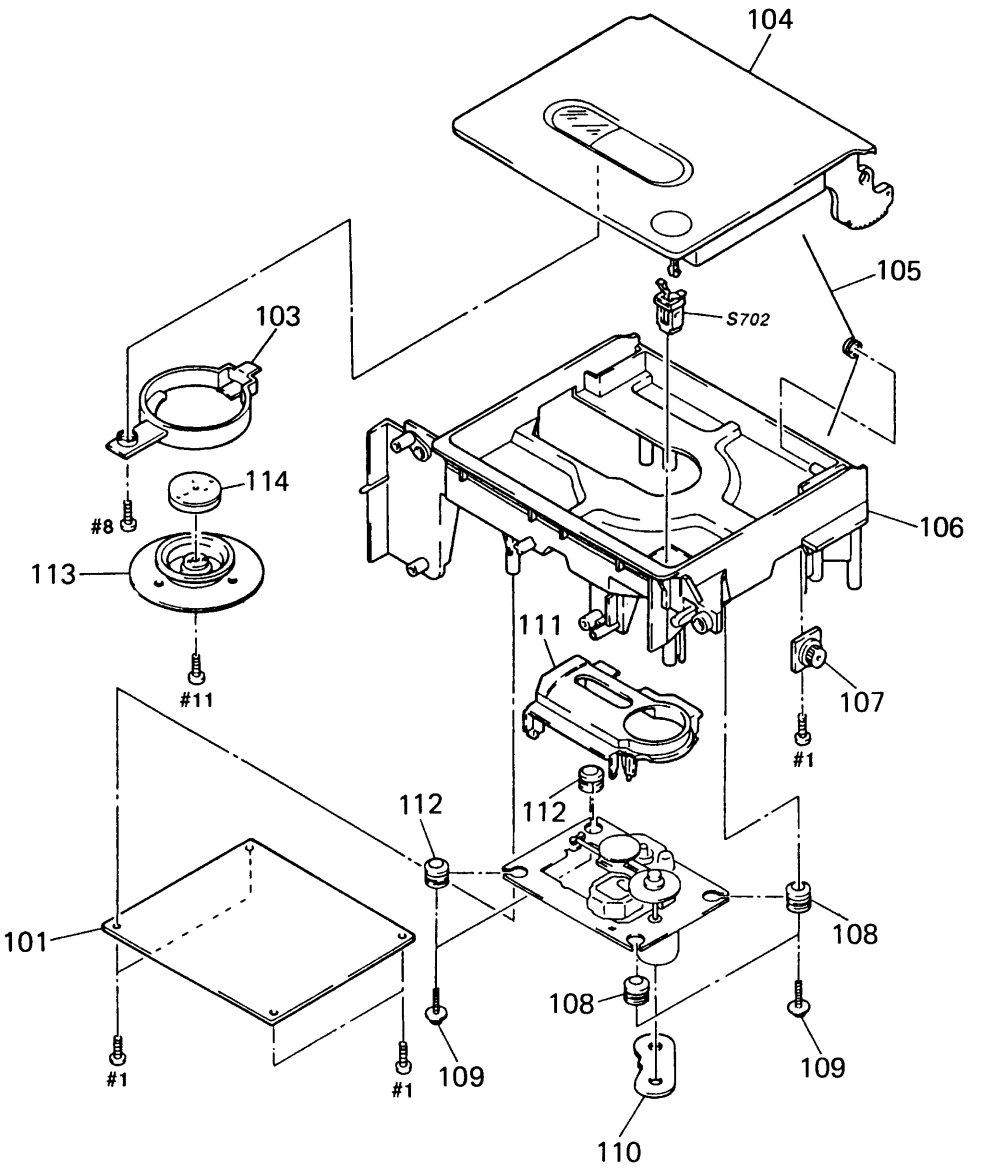
8-2. CABINET (FRONT) SECTION



Ref. No.	Part No.	Description	Remark
51	3-912-396-01	SPRING (CASSETTE)	
52	A-3300-554-A	HOLDER (A) ASSY, CASSETTE	
53	A-3300-555-A	HOLDER (B) ASSY, CASSETTE	
54	3-912-365-01	KNOB (REQ)	
55	A-3300-553-A	CABINET SUB ASSY, FRONT (US, Canadian, E, AUS)	
55	A-3300-695-A	CABINET SUB ASSY, FRONT(AEP)	
56	3-343-248-01	DAMPER (P), SMALL	
* 57	3-912-395-01	SHAFT (MD)	
58	3-912-409-01	BUTTON (PAUSE-A), MD	
59	3-912-408-01	BUTTON (FF-A), MD	
60	3-912-407-01	BUTTON (REW-A), MD	
61	3-912-406-01	BUTTON (PLAY-A), MD	
62	3-912-405-01	BUTTON (HI-DUB), MD	
63	3-912-404-01	BUTTON (STOP-A), MD	
64	3-912-349-01	BUTTON (CD)	
65	1-765-667-11	WIRE, PARALLEL (FFC) (14 CORE)	
66	1-765-665-11	WIRE, PARALLEL (FFC) (9 CORE)	
67	3-912-345-11	BUTTON (FUNC)	
* 68	3-912-371-01	HOLDER (LCD)	
* 69	A-3269-196-A	CONTROL BOARD, COMPLETE (US, Canadian, E, AUS)	
* 69	A-3269-259-A	CONTROL BOARD, COMPLETE(AEP)	

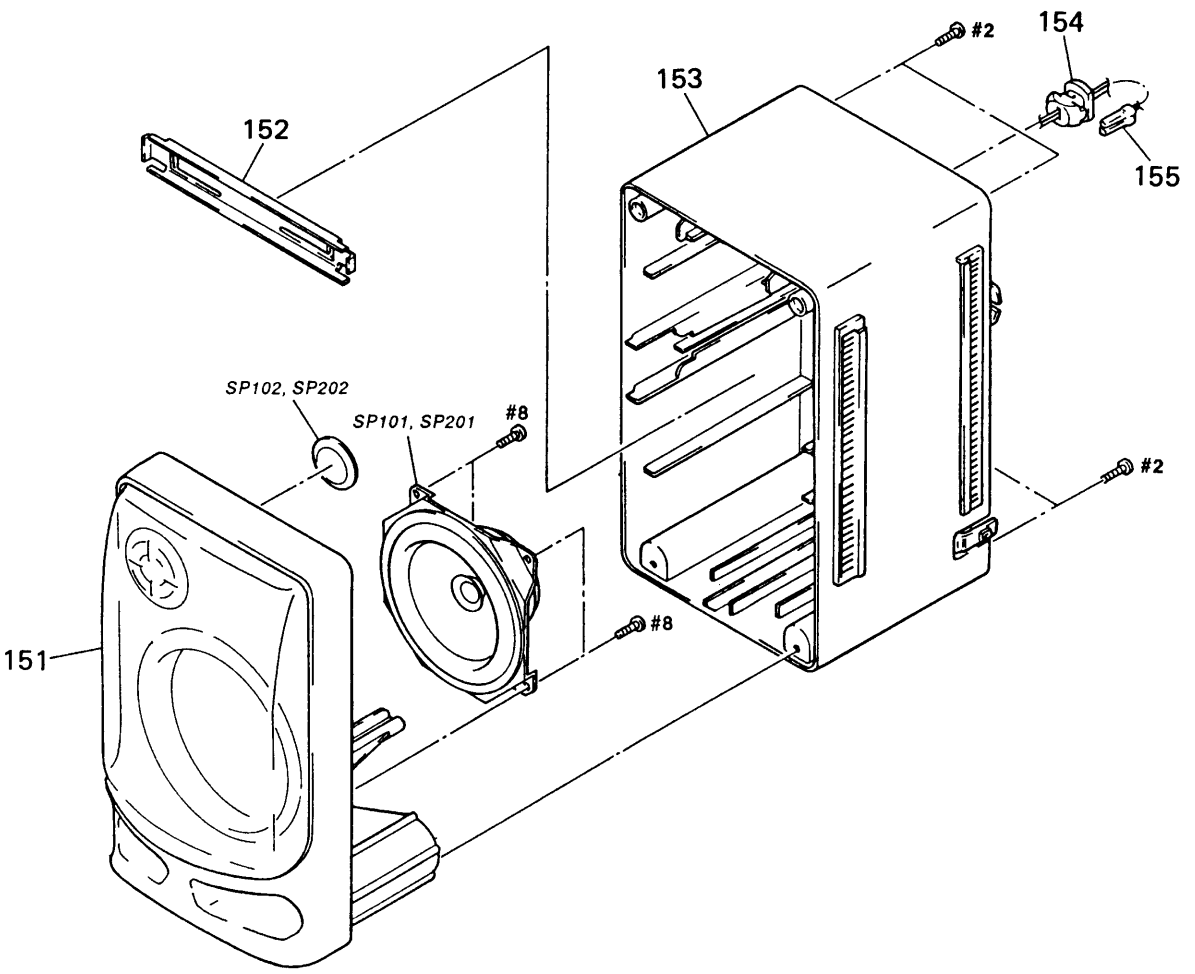
Ref. No.	Part No.	Description	Remark
* 70	1-652-211-11	VOLUME BOARD	
71	3-912-338-01	GEAR (VC)	
* 72	1-652-202-11	TC LEAF BOARD	
* 73	3-912-403-01	LEVER (REC PUSH)	
* 74	4-934-517-01	JOINT	
* 75	A-3269-194-A	MAIN BOARD, COMPLETE(US, Canadian, E)	
* 75	A-3269-257-A	MAIN BOARD, COMPLETE(AEP)	
* 75	A-3269-562-A	MAIN BOARD, COMPLETE(AUS)	
* 76	3-912-358-01	CHASSIS (DIAL)	
77	3-912-346-01	KNOB (TUNE)	
78	3-912-344-01	POINTER	
79	3-912-415-01	BUTTON (PAUSE-B), MD	
80	3-912-414-01	BUTTON (FF-B), MD	
81	3-912-413-01	BUTTON (REW-B), MD	
82	3-912-412-01	BUTTON (PLAY-B), MD	
83	3-912-411-01	BUTTON (REC-B), MD	
84	3-912-410-01	BUTTON (STOP-B), MD	
* 85	3-912-364-01	HOLDER (REC)	
86	3-322-317-01	LEVER, REC	
87	3-912-357-01	KNOB (BAND)	
LCD801	1-810-499-11	DISPLAY PANEL, LIQUID CRYSTAL	

8-3. CD SECTION



Ref. No.	Part No.	Description	Remark
* 101	A-3269-203-A	CD MAIN BOARD, COMPLETE(US, Canadian, E)	
* 101	A-3269-243-A	CD MAIN BOARD, COMPLETE(AEP, AUS)	
103	3-910-113-01	HOLDER (CHUCK)	
104	A-3300-567-A	LID SUB ASSY, CD	
105	3-912-374-01	SPRING (CD)	
* 106	3-912-341-01	CHASSIS (CD)	
107	3-351-377-01	DAMPER	
108	3-910-095-11	RUBBER, VIBRATION PROOF	
109	3-916-006-01	SCREW (2.6X16)	
110	1-652-212-11	CD MOTOR BOARD	
111	3-910-116-01	COVER, CD	
112	3-910-095-01	RUBBER, VIBRATION PROOF	
113	3-910-112-01	PLATE, CHUCKING	
114	1-452-732-11	MAGNET	
S702	1-692-960-11	SWITCH, PUSH (1 KEY)(OPEN/CLOSE)	

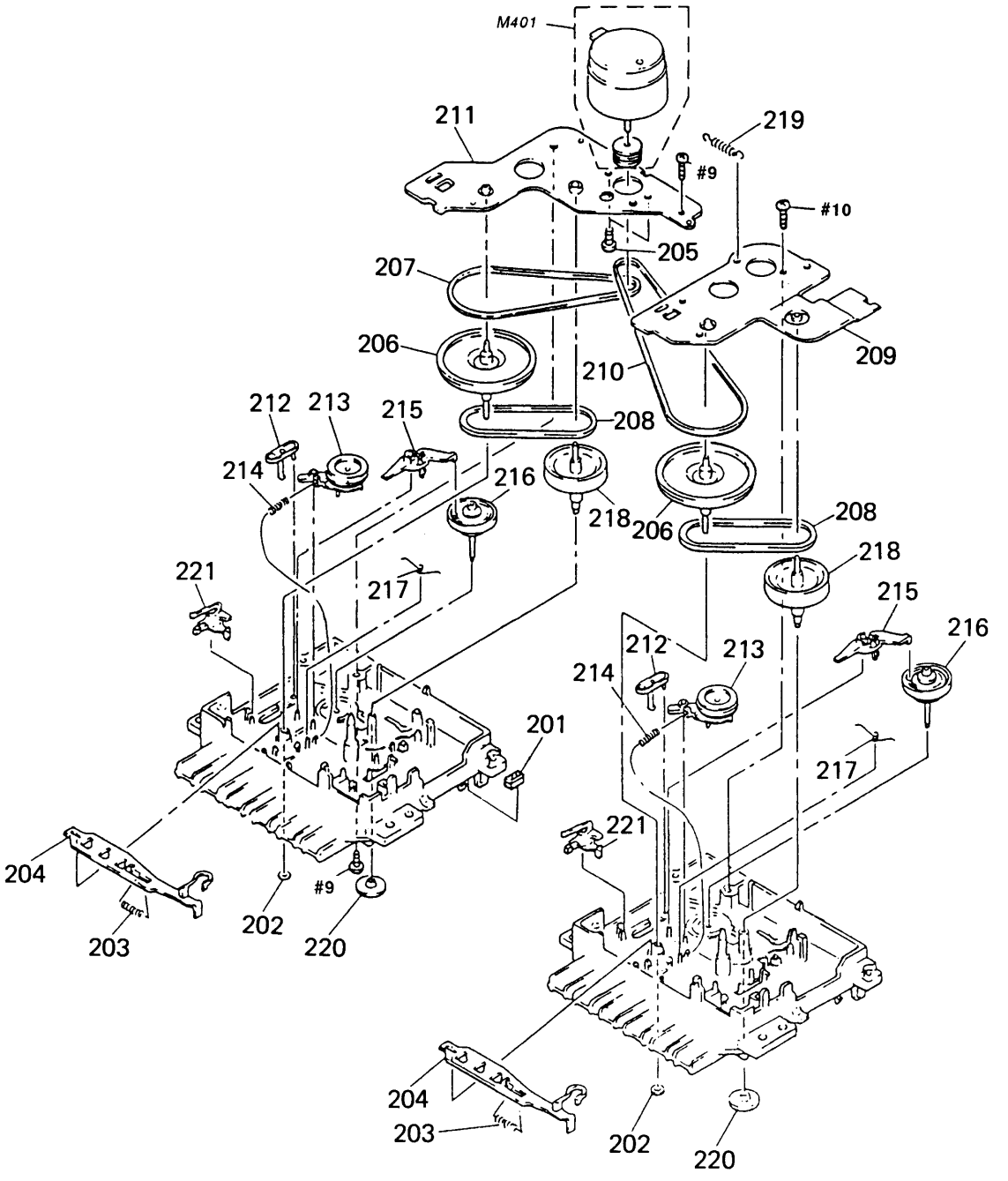
8-4. SPEAKER SECTION



Ref. No.	Part No.	Description	Remark
151	X-3368-181-1	SPK (FRONT) SUB ASSY (L)	
151	X-3368-182-1	SPK (FRONT) SUB ASSY (R)	
* 152	3-912-367-01	BRACKET (SPKER)	
* 153	3-912-361-01	BOX (REAR) (L), SPKER	
* 153	3-912-362-01	BOX (REAR) (R), SPKER	
* 154	3-912-363-01	STOPPER, CORD	

Ref. No.	Part No.	Description	Remark
155	1-559-620-11	CORD (WITH CONNECTOR)	
SP101	1-504-269-21	SPEAKER (10CM)(L-CH)	
SP102	1-529-058-11	BUZZER(L-CH)	
SP201	1-504-269-21	SPEAKER (10CM)(R-CH)	
SP202	1-529-058-11	BUZZER(R-CH)	

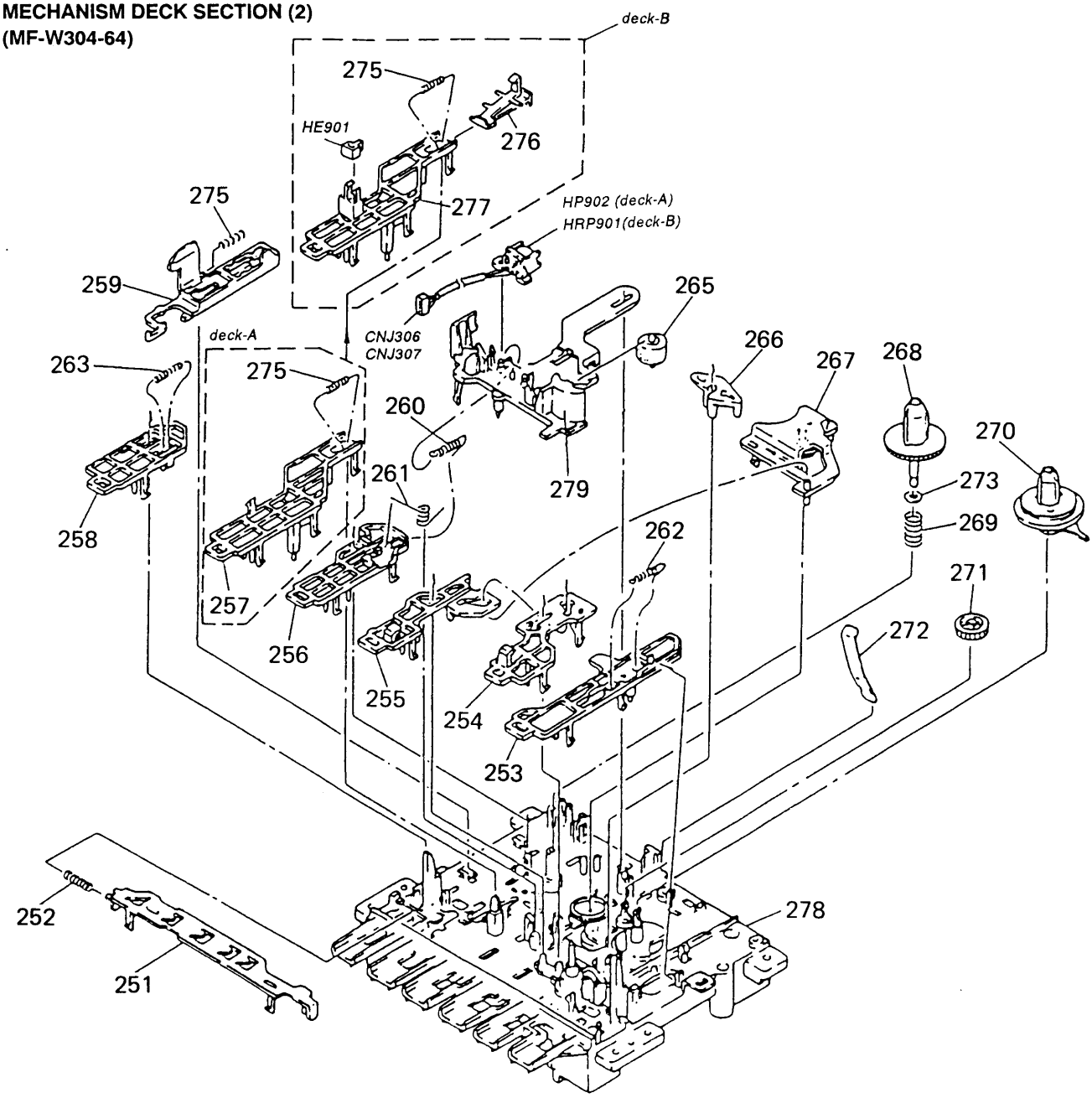
8-5. MECHANISM DECK SECTION (1)
(MF-W304-64)



Ref. No.	Part No.	Description	Remark
201	4-934-522-01	CUSHION	
202	3-343-358-01	RING, RETAINING	
203	4-932-656-01	SPRING, COMPRESSION	
204	4-928-996-11	LEVER, SW	
205	3-343-251-01	SCREW (M2.6X2.5)	
206	X-4920-923-1	WHEEL (W) ASSY, CAPSTAN	
207	3-369-312-01	BELT (59X1)	
208	4-928-974-01	BELT (MIDWAY)	
* 209	X-3367-597-1	PLATE ASSY, GROUND	
210	4-934-521-01	BELT	
211	X-4920-921-1	PLATE (W) ASSY, GROUND	

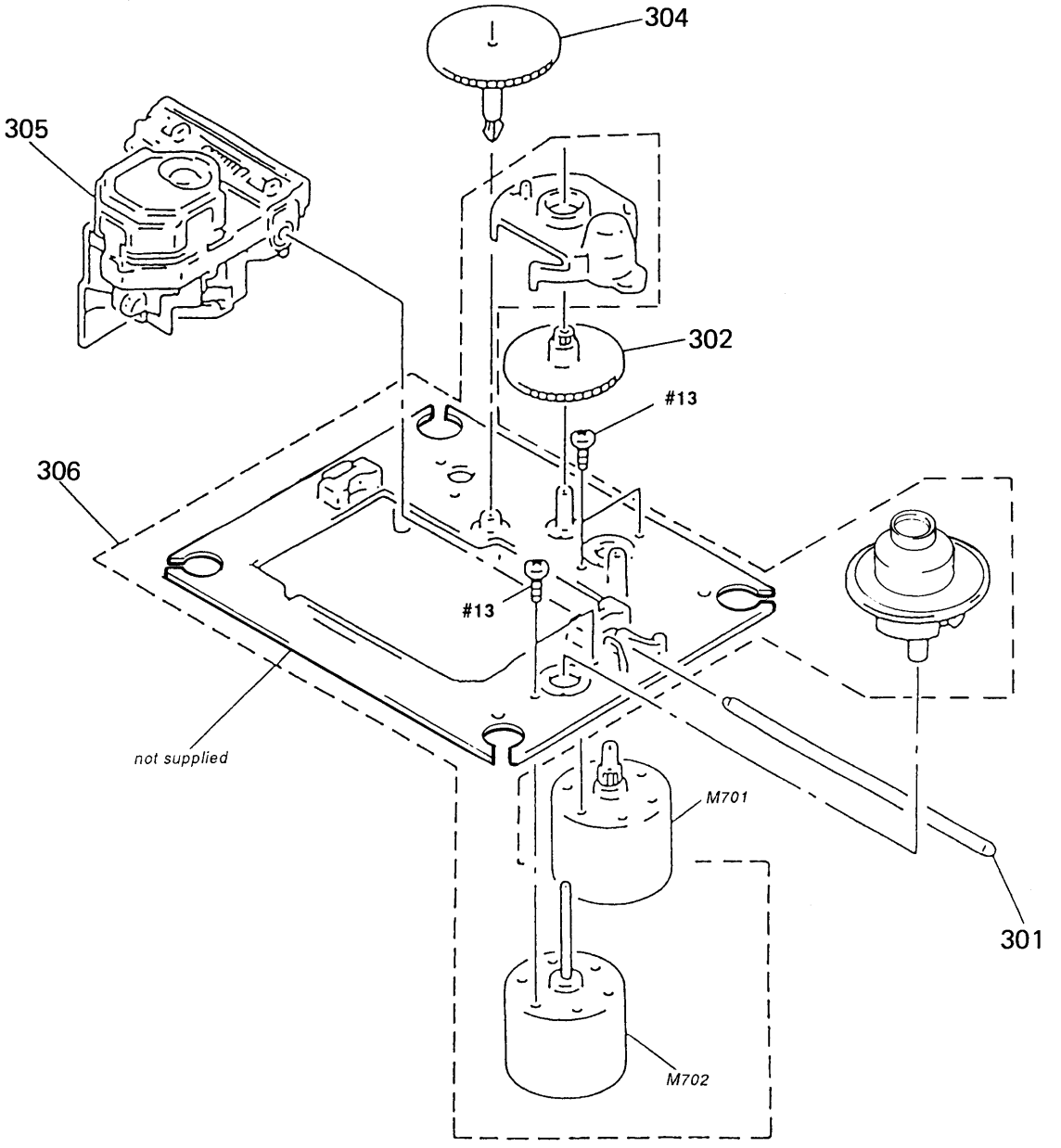
Ref. No.	Part No.	Description	Remark
212	4-928-961-01	PLATE, PAUSE LOCK	
213	X-4920-346-1	LEVER (S) ASSY, IDLER	
214	3-905-168-01	SPRING, COMPRESSION	
215	4-928-986-01	LEVER (S), SHUT-OFF	
216	X-4918-582-1	PLATE ASSY, TAKE-UP REEL	
217	4-928-958-01	SPRING, FR RETURN	
218	X-4920-922-1	PULLEY (W) ASSY, FR	
219	3-322-527-01	SPRING, TENSION	
220	4-928-967-01	GEAR (C), MIDWAY	
221	4-928-987-01	LEVER (T), SHUT-OFF	
M401	X-4920-924-1	MOTOR ASSY	

8-6. MECHANISM DECK SECTION (2)
(MF-W304-64)



Ref.No.	Part No.	Description	Remark
251	4-932-695-01	SLIDER (FR), LOCK	
252	4-932-656-01	SPRING, COMPRESSION	
253	4-928-994-01	LEVER, PAUSE	
254	4-928-993-01	LEVER, FF	
255	4-928-992-01	LEVER, REW	
256	4-928-991-01	LEVER, PLAY	
257	4-921-195-01	LEVER (AC), REC	
258	4-928-985-11	LEVER, STOP	
259	4-936-206-01	SLIDER (S), EJECT	
260	4-928-972-01	SPRING, TENSION	
261	4-928-973-01	SPRING	
262	3-313-372-01	SPRING, TENSION	
263	3-388-999-01	SPRING, COMPRESSION	
265	4-928-962-01	PINCH ROLLER	
266	4-928-982-01	LEVER (C)	
267	X-4920-347-1	LEVER (S) ASSY, FR	
268	4-928-978-01	GEAR (C), SUPPLY REEL	
269	3-343-381-01	SPRING, COMPRESSION	
270	X-4920-350-1	GEAR (S) ASSY, T REEL	
271	3-343-285-01	GEAR, FF	
272	4-928-957-01	RETAINER, CASSETTE	
273	4-931-795-11	WASHER	
275	4-932-648-01	SPRING, COMPRESSION	
276	4-928-960-02	CLAW, SAFETY	
277	4-934-511-01	LEVER (S), REC	
278	X-4920-348-1	CHASSIS (S) ASSY, MECHANICAL	
279	4-932-693-03	DECK (S), HEAD	
* CNJ306	1-691-561-11	HOUSING CONNECTOR 4P(DECK-A)	
* CNJ307	1-691-561-11	HOUSING CONNECTOR 4P(DECK-B)	
HE901	1-543-876-11	HEAD (ERASE)(DECK-B)	
HP902	1-543-628-11	HEAD, MAGNETIC(RECORD/PLAYBACK)(DECK-A)	
HRP901	1-543-714-11	HEAD, MAGNETIC (REC/PB)(DECK-B)	

8-7. OPTICAL PICK-UP SECTION (KSM-212BAN)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
301	2-626-908-01	SHAFT(S), SLED	
302	2-627-003-01	GEAR(B)(RP)	
304	2-626-907-01	GEAR(A)(S)	
⚠305	8-848-337-11	DEVICE, OPTICAL KSS-212B	

Ref. No.	Part No.	Description	Remark
306	X-2625-770-1	CHASSIS ASSY(MB)(RP), MOTOR (INCLUDING M702)(SPINDLE)	
M701	X-2625-769-1	GEAR ASSY(MB)(RP), MOTOR (SLED)	

BATTERY CD MAIN

SECTION 9
ELECTRICAL PARTS LIST

NOTE :
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE : Metal oxide-film resistor
  F : nonflammable
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ , for example :
  uA.... : μ A.... , uPA.... : μ PA....
  uPB.... : μ PB.... , uPC.... : μ PC....
  uPD.... : μ PD....
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H
- Abbreviation
  AUS : Australian

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	1-652-204-11	BATTERY BOARD			
		**********			
	3-912-376-01	SPRING (BATT)			
		< CAPACITOR >			
C905	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CABLE HOLDER >			
* KH901	1-573-287-11	HOLDER, CABLE 2P			
**********					
*	A-3269-203-A	CD MAIN BOARD, COMPLETE(US, Canadian, E)			
*	A-3269-243-A	CD MAIN BOARD, COMPLETE(AEP, AUS)			
		**********			
		< CAPACITOR >			
C700	1-161-379-00	CERAMIC	0.01uF	20%	25V
C701	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C702	1-136-165-00	FILM	0.1uF	5%	50V
C703	1-136-165-00	FILM	0.1uF	5%	50V
C704	1-136-165-00	FILM	0.1uF	5%	50V
C705	1-131-375-00	TANTALUM	4.7uF	10%	10V
C706	1-130-489-00	MYLAR	0.033uF	5%	50V
C707	1-130-486-00	MYLAR	0.018uF	10%	50V
C708	1-162-199-31	CERAMIC	10PF	5%	50V
C709	1-126-962-11	ELECT	3.3uF	20%	50V
C710	1-130-493-00	MYLAR	0.068uF	5%	50V
C711	1-162-215-31	CERAMIC	47PF	5%	50V
C712	1-161-379-00	CERAMIC	0.01uF	20%	25V
C713	1-130-489-00	MYLAR	0.033uF	5%	50V
C714	1-161-379-00	CERAMIC	0.01uF	20%	25V
C715	1-130-489-00	MYLAR	0.033uF	5%	50V
C716	1-130-483-00	MYLAR	0.01uF	5%	50V

Ref. No.	Part No.	Description			Remark
C717	1-124-126-00	ELECT	47uF	20%	10V
C718	1-124-907-11	ELECT	10uF	20%	50V
C719	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C720	1-130-483-00	MYLAR	0.01uF	5%	50V
C721	1-130-491-00	MYLAR	0.047uF	5%	50V
C722	1-161-494-00	CERAMIC	0.022uF		25V
C723	1-130-495-00	MYLAR	0.1uF	5%	50V
C724	1-124-443-00	ELECT	100uF	20%	10V
C725	1-162-197-31	CERAMIC	6.8PF	10%	50V
C726	1-162-294-31	CERAMIC	0.001uF	10%	50V
C727	1-161-379-00	CERAMIC	0.01uF	20%	25V
C728	1-136-165-00	FILM	0.1uF	5%	50V
C729	1-124-126-00	ELECT	47uF	20%	10V
C730	1-124-472-11	ELECT	470uF	20%	10V
C731	1-162-294-31	CERAMIC	0.001uF	10%	50V
C732	1-130-484-00	MYLAR	0.012uF	5%	50V
C734	1-161-040-00	CERAMIC	0.0012uF	10%	25V
C735	1-162-215-31	CERAMIC	47PF	5%	50V
C736	1-124-443-00	ELECT	100uF	20%	10V
C737	1-162-294-31	CERAMIC	0.001uF	10%	50V
C738	1-162-291-31	CERAMIC	560PF	10%	50V
C740	1-136-165-00	FILM	0.1uF	5%	50V
C741	1-124-126-00	ELECT	47uF	20%	10V
C742	1-136-173-00	FILM	0.47uF	5%	50V
C743	1-161-374-11	CERAMIC	0.0015uF	20%	50V
C744	1-162-286-31	CERAMIC	220PF	10%	50V
C745	1-136-169-00	FILM	0.22uF	5%	50V
C746	1-161-379-00	CERAMIC	0.01uF	20%	25V
C747	1-130-481-00	MYLAR	0.0068uF	5%	50V
C750	1-126-176-11	ELECT	220uF	20%	10V
C752	1-102-942-00	CERAMIC	5.0PF	+-0.5PF	50V
C753	1-102-942-00	CERAMIC	5.0PF	+-0.5PF	50V
C754	1-162-291-31	CERAMIC	560PF	10%	50V

Ref.No.	Part No.	Description			Remark
C755	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C756	1-161-379-00	CERAMIC	0.01uF	20%	25V
C757	1-161-379-00	CERAMIC	0.01uF	20%	25V
C758	1-162-282-31	CERAMIC	100PF	10%	50V
C760	1-162-288-31	CERAMIC	330PF	10%	50V
C761	1-162-217-31	CERAMIC	56PF	5%	50V
C762	1-162-217-31	CERAMIC	56PF	5%	50V
C763	1-162-293-31	CERAMIC	820PF	10%	50V
C764	1-124-927-11	ELECT	4.7uF	20%	100V
C770	1-162-288-31	CERAMIC	330PF	10%	50V
C771	1-162-217-31	CERAMIC	56PF	5%	50V
C772	1-162-217-31	CERAMIC	56PF	5%	50V
C773	1-162-293-31	CERAMIC	820PF	10%	50V
C774	1-124-927-11	ELECT	4.7uF	20%	100V
C780	1-124-126-00	ELECT	47uF	20%	10V
C781	1-126-176-11	ELECT	220uF	20%	10V
C782	1-161-379-00	CERAMIC	0.01uF	20%	25V
C783	1-161-379-00	CERAMIC	0.01uF	20%	25V
C787	1-126-176-11	ELECT	220uF	20%	10V
C788	1-136-165-00	FILM	0.1uF	5%	50V
C790	1-124-902-00	ELECT	0.47uF	20%	50V
C791	1-162-294-31	CERAMIC	0.001uF	10%	50V
C792	1-162-219-31	CERAMIC	68PF	5%	50V
C793	1-162-219-31	CERAMIC	68PF	5%	50V
C794	1-162-219-31	CERAMIC	68PF	5%	50V
C795	1-162-294-31	CERAMIC	0.001uF	10%	50V
C796	1-161-379-00	CERAMIC	0.01uF	20%	25V

< CONNECTOR >

* CNP701	1-691-579-11	PIN, CONNECTOR (PC BOARD)	8P
* CNP702	1-691-579-21	PIN, CONNECTOR (PC BOARD)	8P
* CNP703	1-691-577-11	PIN, CONNECTOR (PC BOARD)	6P
* CNP704	1-695-105-11	PIN, CONNECTOR (PC BOARD)	3P
* CNP705	1-695-107-11	PIN, CONNECTOR (PC BOARD)	5P
CNP706	1-568-852-11	PIN, CONNECTOR (PC BOARD)	9P

< DIODE >

D701	8-719-911-19	DIODE	1SS119

< IC >

IC701	8-752-068-52	IC	CXA1782BQ
IC702	8-752-361-92	IC	CXD2517Q
IC703	8-759-518-59	IC	BA6296FP
IC704	8-759-198-93	IC	SM5874AM1
IC705	8-759-100-96	IC	uPC4558G2

< COIL >

L702	1-414-140-11	INDUCTOR	0.68uH
L703	1-414-142-11	INDUCTOR	1uH
L706	1-414-146-31	INDUCTOR	2.2uH
L713	1-414-142-11	INDUCTOR	1uH
L714	1-414-142-11	INDUCTOR	1uH
L715	1-414-142-11	INDUCTOR	1uH
L716	1-414-140-11	INDUCTOR	0.68uH
L717	1-414-140-11	INDUCTOR	0.68uH
L718	1-414-140-11	INDUCTOR	0.68uH
L719	1-414-140-11	INDUCTOR	0.68uH
L720	1-414-140-11	INDUCTOR	0.68uH
L721	1-414-140-11	INDUCTOR	0.68uH
L723	1-412-478-31	INDUCTOR	0.15uH
L741	1-414-142-11	INDUCTOR	1uH
L742	1-414-142-11	INDUCTOR	1uH
L760	1-414-142-11	INDUCTOR	1uH
L770	1-414-142-11	INDUCTOR	1uH

< TRANSISTOR >

Q701	8-729-801-84	TRANSISTOR	2SB1013-4
Q702	8-729-900-85	TRANSISTOR	DTC144WS
Q703	8-729-900-74	TRANSISTOR	DTC143TS
Q705	8-729-902-80	TRANSISTOR	DTA114YS
Q760	8-729-900-74	TRANSISTOR	DTC143TS
Q770	8-729-900-74	TRANSISTOR	DTC143TS

< RESISTOR >

R700	1-249-429-11	CARBON	10K	5%	1/4W
R701	1-249-441-11	CARBON	100K	5%	1/4W
R702	1-247-896-11	CARBON	510K	5%	1/4W
R703	1-249-441-11	CARBON	100K	5%	1/4W
R704	1-249-441-11	CARBON	100K	5%	1/4W
R705	1-249-437-11	CARBON	47K	5%	1/4W
R706	1-247-883-00	CARBON	150K	5%	1/4W
R707	1-249-432-11	CARBON	18K	5%	1/4W
R708	1-247-883-00	CARBON	150K	5%	1/4W
R709	1-249-432-11	CARBON	18K	5%	1/4W
R710	1-249-397-11	CARBON	22	5%	1/4W
R711	1-249-417-11	CARBON	1K	5%	1/4W
R712	1-247-886-11	CARBON	200K	5%	1/4W
R713	1-247-883-00	CARBON	150K	5%	1/4W
R714	1-247-883-00	CARBON	150K	5%	1/4W
R715	1-247-806-11	CARBON	91	5%	1/4W
R716	1-249-430-11	CARBON	12K	5%	1/4W
R717	1-249-425-11	CARBON	4.7K	5%	1/4W
R718	1-247-899-11	CARBON	680K	5%	1/4W
R720	1-249-441-11	CARBON	100K	5%	1/4W
R721	1-247-895-00	CARBON	470K	5%	1/4W
R730	1-249-435-11	CARBON	33K	5%	1/4W

CD MAIN | CD MOTOR | CONTROL

Ref. No.	Part No.	Description			Remark
R731	1-249-433-11	CARBON	22K	5%	1/4W
R732	1-249-429-11	CARBON	10K	5%	1/4W
R733	1-249-435-11	CARBON	33K	5%	1/4W
R734	1-249-437-11	CARBON	47K	5%	1/4W
R735	1-249-422-11	CARBON	2.7K	5%	1/4W
R740	1-249-423-11	CARBON	3.3K	5%	1/4W
R741	1-249-417-11	CARBON	1K	5%	1/4W
R742	1-249-423-11	CARBON	3.3K	5%	1/4W
R743	1-247-903-00	CARBON	1M	5%	1/4W
R744	1-247-887-00	CARBON	220K	5%	1/4W
R745	1-247-856-00	CARBON	11K	5%	1/4W
R746	1-249-437-11	CARBON	47K	5%	1/4W
R747	1-249-417-11	CARBON	1K	5%	1/4W
R748	1-249-429-11	CARBON	10K	5%	1/4W
R749	1-249-429-11	CARBON	10K	5%	1/4W
R751	1-249-429-11	CARBON	10K	5%	1/4W
R752	1-249-429-11	CARBON	10K	5%	1/4W
R753	1-249-429-11	CARBON	10K	5%	1/4W
R754	1-249-429-11	CARBON	10K	5%	1/4W
R760	1-249-429-11	CARBON	10K	5%	1/4W
R761	1-249-429-11	CARBON	10K	5%	1/4W
R762	1-247-870-11	CARBON	43K	5%	1/4W
R763	1-247-870-11	CARBON	43K	5%	1/4W
R764	1-249-434-11	CARBON	27K	5%	1/4W
R765	1-249-434-11	CARBON	27K	5%	1/4W
R770	1-249-429-11	CARBON	10K	5%	1/4W
R771	1-249-429-11	CARBON	10K	5%	1/4W
R772	1-247-870-11	CARBON	43K	5%	1/4W
R773	1-247-870-11	CARBON	43K	5%	1/4W
R774	1-249-434-11	CARBON	27K	5%	1/4W
R775	1-249-434-11	CARBON	27K	5%	1/4W
R776	1-249-417-11	CARBON	1K	5%	1/4W
R780	1-247-807-11	CARBON	100	5%	1/4W
R781	1-247-856-00	CARBON	11K	5%	1/4W
R782	1-249-431-11	CARBON	15K	5%	1/4W
R790	1-249-433-11	CARBON	22K	5%	1/4W
R792	1-249-429-11	CARBON	10K	5%	1/4W
		< VARIABLE RESISTOR >			
RV701	1-237-288-11	RES, ADJ, CARBON 47K(FOCUS BIAS)			
RV702	1-230-497-11	RES, ADJ, CARBON 22K(FOCUS GAIN)			
		< VIBRATOR >			
X701	1-579-345-11	VIBRATOR, CERAMIC(16.9344MHz)			

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Ref. No.	Part No.	Description	Remark
*	1-652-212-11	CD MOTOR BOARD	
		**********	
		< SWITCH >	
S701	1-571-936-11	SWITCH, LEAF(LIMIT)	

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*	A-3269-196-A	CONTROL BOARD, COMPLETE	(US, Canadian, E, AUS)
*	A-3269-259-A	CONTROL BOARD, COMPLETE(AEP)	
		**********	
*	3-912-371-01	HOLDER (LCD)	
		< CAPACITOR >	

C801	1-162-282-31	CERAMIC	100PF	10%	50V
C803	1-162-282-31	CERAMIC	100PF	10%	50V
C804	1-162-282-31	CERAMIC	100PF	10%	50V
C805	1-162-282-31	CERAMIC	100PF	10%	50V
C806	1-162-282-31	CERAMIC	100PF	10%	50V
C807	1-162-282-31	CERAMIC	100PF	10%	50V
C808	1-162-282-31	CERAMIC	100PF	10%	50V
C810	1-162-282-31	CERAMIC	100PF	10%	50V
C811	1-162-282-31	CERAMIC	100PF	10%	50V
C812	1-162-282-31	CERAMIC	100PF	10%	50V
C813	1-162-282-31	CERAMIC	100PF	10%	50V
C814	1-124-907-11	ELECT	10uF	20%	50V
C815	1-161-379-00	CERAMIC	0.01uF	20%	25V
C816	1-102-962-00	CERAMIC	30PF	5%	50V
C817	1-102-962-00	CERAMIC	30PF	5%	50V
C818	1-162-197-31	CERAMIC	6.8PF	10%	50V
C819	1-162-197-31	CERAMIC	6.8PF	10%	50V
C820	1-124-907-11	ELECT	10uF	20%	50V
C821	1-161-379-00	CERAMIC	0.01uF	20%	25V
C822	1-161-379-00	CERAMIC	0.01uF	20%	25V
C823	1-124-907-11	ELECT	10uF	20%	50V
C824	1-124-907-11	ELECT	10uF	20%	50V
C825	1-124-126-00	ELECT	47uF	20%	10V
C826	1-161-379-00	CERAMIC	0.01uF	20%	25V
C827	1-161-379-00	CERAMIC	0.01uF	20%	25V
C828	1-161-379-00	CERAMIC	0.01uF	20%	25V
C829	1-161-379-00	CERAMIC	0.01uF	20%	25V
C830	1-161-379-00	CERAMIC	0.01uF	20%	25V
C831	1-161-379-00	CERAMIC	0.01uF	20%	25V
C832	1-161-379-00	CERAMIC	0.01uF	20%	25V
C833	1-161-379-00	CERAMIC	0.01uF	20%	25V
C834	1-161-379-00	CERAMIC	0.01uF	20%	25V
C835	1-162-282-31	CERAMIC	100PF	10%	50V
C836	1-161-379-00	CERAMIC	0.01uF	20%	25V
C837	1-161-379-00	CERAMIC	0.01uF	20%	25V

Ref.No.	Part No.	Description	Remark
		< CONNECTOR >	
CNP801	1-568-828-11	PIN, CONNECTOR (PC BOARD) 9P	
* CNP803	1-695-375-31	PIN, CONNECTOR (PC BOARD) 14P	
		< DIODE >	
D801	8-719-048-46	LED SLZ-190B-10-T1(OPR/BATT)	
D802	8-719-048-47	LED SLZ-190B-06-T1(POWER STANDBY)(AEP)	
		< IC >	
IC801	8-759-261-30	IC MSM65352B-015GS-VK	
IC802	8-748-025-08	IC SBX8025-H	
IC803	8-759-179-74	IC M62354P	
IC804	8-759-510-54	IC PST572D	
		< CABLE HOLDER >	
* KH801	1-573-287-11	HOLDER, CABLE 2P	
* KH803	1-565-384-11	HOLDER, CABLE 3P	
		< COIL >	
L801	1-410-316-11	INDUCTOR 1uH	
L802	1-410-316-11	INDUCTOR 1uH	
L803	1-410-509-11	INDUCTOR 10uH	
		< LIQUID CRYSTAL DISPLAY >	
LCD801	1-810-499-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< TRANSISTOR >	
Q801	8-729-206-20	TRANSISTOR RN1202	
		< RESISTOR >	
R801	1-249-417-11	CARBON 1K 5% 1/4W	
R802	1-249-417-11	CARBON 1K 5% 1/4W	
R803	1-249-417-11	CARBON 1K 5% 1/4W	
R804	1-249-417-11	CARBON 1K 5% 1/4W	
R805	1-249-417-11	CARBON 1K 5% 1/4W	
R806	1-249-417-11	CARBON 1K 5% 1/4W	
R807	1-249-417-11	CARBON 1K 5% 1/4W	
R808	1-249-417-11	CARBON 1K 5% 1/4W	
R809	1-249-417-11	CARBON 1K 5% 1/4W	
R810	1-249-417-11	CARBON 1K 5% 1/4W	
R811	1-249-417-11	CARBON 1K 5% 1/4W	
R812	1-249-417-11	CARBON 1K 5% 1/4W	
R813	1-249-417-11	CARBON 1K 5% 1/4W	
R814	1-249-419-11	CARBON 1.5K 5% 1/4W	
R815	1-247-883-00	CARBON 150K 5% 1/4W	
R816	1-247-883-00	CARBON 150K 5% 1/4W	
R817	1-247-883-00	CARBON 150K 5% 1/4W	
R818	1-247-889-00	CARBON 270K 5% 1/4W	
R819	1-249-417-11	CARBON 1K 5% 1/4W	
R823	1-249-429-11	CARBON 10K 5% 1/4W	
R828	1-249-425-11	CARBON 4.7K 5% 1/4W	
R829	1-249-425-11	CARBON 4.7K 5% 1/4W	
R830	1-249-425-11	CARBON 4.7K 5% 1/4W	
R833	1-249-418-11	CARBON 1.2K 5% 1/4W	
R834	1-249-418-11	CARBON 1.2K 5% 1/4W	
R835	1-249-418-11	CARBON 1.2K 5% 1/4W	
R838	1-249-421-11	CARBON 2.2K 5% 1/4W	
R839	1-249-421-11	CARBON 2.2K 5% 1/4W	
R840	1-249-421-11	CARBON 2.2K 5% 1/4W	
R843	1-249-424-11	CARBON 3.9K 5% 1/4W	
R845	1-249-424-11	CARBON 3.9K 5% 1/4W	
R846	1-249-425-11	CARBON 4.7K 5% 1/4W	
R847	1-249-418-11	CARBON 1.2K 5% 1/4W	
R848	1-249-421-11	CARBON 2.2K 5% 1/4W	
R849	1-249-424-11	CARBON 3.9K 5% 1/4W	
R850	1-249-429-11	CARBON 10K 5% 1/4W	
R851	1-249-429-11	CARBON 10K 5% 1/4W	
R860	1-249-413-11	CARBON 470 5% 1/4W	
R861	1-249-413-11	CARBON 470 5% 1/4W(AEP)	
R862	1-249-430-11	CARBON 12K 5% 1/4W	
R863	1-249-437-11	CARBON 47K 5% 1/4W	
R864	1-249-437-11	CARBON 47K 5% 1/4W	
R865	1-249-437-11	CARBON 47K 5% 1/4W	
R867	1-249-417-11	CARBON 1K 5% 1/4W	
R868	1-249-437-11	CARBON 47K 5% 1/4W	
R869	1-249-429-11	CARBON 10K 5% 1/4W	
		< SWITCH >	
S801	1-572-198-11	SWITCH, KEY BOARD(FUNCTION CD)	
S802	1-572-198-11	SWITCH, KEY BOARD(STOP□)	
S803	1-572-198-11	SWITCH, KEY BOARD(FUNCTION RADIO)	
S804	1-572-198-11	SWITCH, KEY BOARD(PLAY/PAUSE ▷/□□)	
S805	1-572-198-11	SWITCH, KEY BOARD(FUNCTION TAPE)	
S806	1-572-198-11	SWITCH, KEY BOARD(AMS/SEARCH ▶▶I)	
S807	1-572-198-11	SWITCH, KEY BOARD(PLAY MODE)	
S809	1-572-198-11	SWITCH, KEY BOARD(AMS/SEARCH I◀◀)	
S810	1-572-198-11	SWITCH, KEY BOARD(DISPLAY/ENTER)	
S813	1-572-198-11	SWITCH, KEY BOARD(POWER)	
		< VIBRATOR >	
X801	1-579-901-11	OSCILLATOR, CERAMIC(4.19MHz)	
X802	1-567-098-41	VIBRATOR, CRYSTAL(32.768kHz)	

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MAIN

Ref. No.	Part No.	Description			Remark
*	A-3269-194-A	MAIN BOARD, COMPLETE(US, Canadian, E)			
*	A-3269-257-A	MAIN BOARD, COMPLETE(AEP)			
*	A-3269-562-A	MAIN BOARD, COMPLETE(AUS)			
		**********			
	3-322-317-01	LEVER, REC			
	3-912-338-01	GEAR (VC)			
	3-912-357-01	KNOB (BAND)			
*	3-912-364-01	HOLDER (REC)			
		< CAPACITOR >			
C1	1-162-286-31	CERAMIC	220PF	10%	50V
C3	1-162-306-11	CERAMIC	0.01uF	20%	16V
C4	1-124-907-11	ELECT	10uF	20%	50V
C5	1-162-282-31	CERAMIC	100PF	10%	50V
C7	1-162-205-31	CERAMIC	18PF	5%	50V
					(US, Canadian, E, AUS)
C7	1-162-207-31	CERAMIC	22PF	5%	50V(AEP)
C8	1-102-960-00	CERAMIC	24PF	5%	50V
					(US, Canadian, E, AUS)
C8	1-102-962-00	CERAMIC	30PF	5%	50V(AEP)
C9	1-162-198-31	CERAMIC	8.2PF	10%	50V
					(US, Canadian, E, AUS)
C9	1-162-199-31	CERAMIC	10PF	5%	50V(AEP)
C10	1-162-193-31	CERAMIC	3.3PF	10%	50V
C11	1-162-306-11	CERAMIC	0.01uF	20%	16V
C12	1-162-282-31	CERAMIC	100PF	10%	50V
C15	1-124-927-11	ELECT	4.7uF	20%	100V
C16	1-124-903-11	ELECT	1uF	20%	50V
C17	1-124-126-00	ELECT	47uF	20%	10V
C18	1-124-126-00	ELECT	47uF	20%	10V
C19	1-162-306-11	CERAMIC	0.01uF	20%	16V
C20	1-124-903-11	ELECT	1uF	20%	50V
C21	1-124-925-11	ELECT	2.2uF	20%	100V
C22	1-124-443-00	ELECT	100uF	20%	10V
C23	1-124-902-00	ELECT	0.47uF	20%	50V
C24	1-124-927-11	ELECT	4.7uF	20%	100V
C25	1-124-463-00	ELECT	0.1uF	20%	50V
C27	1-161-053-00	CERAMIC	0.015uF	10%	50V
					(US, Canadian, E, AUS)
C27	1-162-840-11	CERAMIC	0.012uF	10%	16V(AEP)
C28	1-161-053-00	CERAMIC	0.015uF	10%	50V
					(US, Canadian, E, AUS)
C28	1-162-840-11	CERAMIC	0.012uF	10%	16V(AEP)
C29	1-124-902-00	ELECT	0.47uF	20%	50V
C30	1-124-902-00	ELECT	0.47uF	20%	50V
C47	1-162-282-31	CERAMIC	100PF	10%	50V
C48	1-162-306-11	CERAMIC	0.01uF	20%	16V
C49	1-161-494-00	CERAMIC	0.022uF		25V(AEP)
C101	1-162-291-31	CERAMIC	560PF	10%	50V
C102	1-162-291-31	CERAMIC	560PF	10%	50V

Ref. No.	Part No.	Description			Remark
C103	1-162-286-31	CERAMIC	220PF	10%	50V
C104	1-162-286-31	CERAMIC	220PF	10%	50V
C105	1-130-486-00	MYLAR	0.018uF	10%	50V
C106	1-124-126-00	ELECT	47uF	20%	10V
C107	1-124-903-11	ELECT	1uF	20%	50V
C108	1-162-294-31	CERAMIC	0.001uF	10%	50V
C109	1-124-126-00	ELECT	47uF	20%	10V
C110	1-162-294-31	CERAMIC	0.001uF	10%	50V
C111	1-124-903-11	ELECT	1uF	20%	50V
C112	1-124-903-11	ELECT	1uF	20%	50V
C113	1-162-290-31	CERAMIC	470PF	10%	50V
C114	1-162-292-31	CERAMIC	680PF	10%	50V
C115	1-162-292-31	CERAMIC	680PF	10%	50V
C116	1-162-282-31	CERAMIC	100PF	10%	50V
C117	1-162-290-31	CERAMIC	470PF	10%	50V
C119	1-124-903-11	ELECT	1uF	20%	50V
C120	1-162-294-31	CERAMIC	0.001uF	10%	50V
C121	1-124-927-11	ELECT	4.7uF	20%	100V
C122	1-124-927-11	ELECT	4.7uF	20%	100V
C124	1-124-443-00	ELECT	100uF	20%	10V
C125	1-124-443-00	ELECT	100uF	20%	10V
C126	1-124-473-11	ELECT	1000uF	20%	10V
C127	1-136-169-00	FILM	0.22uF	5%	50V
C128	1-161-374-11	CERAMIC	0.0015uF	20%	50V
C151	1-124-927-11	ELECT	4.7uF	20%	100V
C152	1-162-849-11	CERAMIC	0.068uF	10%	16V
C153	1-162-848-11	CERAMIC	0.056uF	10%	16V
C154	1-124-464-11	ELECT	0.22uF	20%	50V
C155	1-162-282-31	CERAMIC	100PF	10%	50V
C157	1-162-294-31	CERAMIC	0.001uF	10%	50V
C158	1-124-907-11	ELECT	10uF	20%	50V
C201	1-162-291-31	CERAMIC	560PF	10%	50V
C202	1-162-291-31	CERAMIC	560PF	10%	50V
C203	1-162-286-31	CERAMIC	220PF	10%	50V
C204	1-162-286-31	CERAMIC	220PF	10%	50V
C205	1-130-486-00	MYLAR	0.018uF	10%	50V
C206	1-124-126-00	ELECT	47uF	20%	10V
C207	1-124-903-11	ELECT	1uF	20%	50V
C208	1-162-294-31	CERAMIC	0.001uF	10%	50V
C209	1-124-126-00	ELECT	47uF	20%	10V
C210	1-162-294-31	CERAMIC	0.001uF	10%	50V
C211	1-124-903-11	ELECT	1uF	20%	50V
C212	1-124-903-11	ELECT	1uF	20%	50V
C213	1-162-290-31	CERAMIC	470PF	10%	50V
C214	1-162-292-31	CERAMIC	680PF	10%	50V
C215	1-162-292-31	CERAMIC	680PF	10%	50V
C216	1-162-282-31	CERAMIC	100PF	10%	50V
C217	1-162-290-31	CERAMIC	470PF	10%	50V
C219	1-124-903-11	ELECT	1uF	20%	50V

Ref. No.	Part No.	Description			Remark
C220	1-162-294-31	CERAMIC	0.001uF	10%	50V
C221	1-124-927-11	ELECT	4.7uF	20%	100V
C222	1-124-927-11	ELECT	4.7uF	20%	100V
C224	1-124-443-00	ELECT	100uF	20%	10V
C225	1-124-443-00	ELECT	100uF	20%	10V
C226	1-124-473-11	ELECT	1000uF	20%	10V
C227	1-136-169-00	FILM	0.22uF	5%	50V
C228	1-161-374-11	CERAMIC	0.0015uF	20%	50V
C251	1-124-927-11	ELECT	4.7uF	20%	100V
C252	1-162-849-11	CERAMIC	0.068uF	10%	16V
C253	1-162-848-11	CERAMIC	0.056uF	10%	16V
C254	1-124-464-11	ELECT	0.22uF	20%	50V
C255	1-162-282-31	CERAMIC	100PF	10%	50V
C257	1-162-294-31	CERAMIC	0.001uF	10%	50V
C258	1-124-907-11	ELECT	10uF	20%	50V
C303	1-124-443-00	ELECT	100uF	20%	10V
C304	1-124-443-00	ELECT	100uF	20%	10V
C305	1-124-925-11	ELECT	2.2uF	20%	100V
C306	1-124-443-00	ELECT	100uF	20%	10V (US, Canadian, AEP, E)
C306	1-124-126-00	ELECT	47uF	20%	10V(AUS)
C307	1-104-792-51	ELECT	33uF	20%	16V
C308	1-126-233-11	ELECT	22uF	20%	50V
C312	1-162-284-31	CERAMIC	150PF	10%	50V(AEP)
C313	1-130-471-00	MYLAR	0.001uF	5%	50V
C314	1-124-463-00	ELECT	0.1uF	20%	50V
C316	1-124-126-00	ELECT	47uF	20%	10V
C317	1-161-327-00	CERAMIC	0.0033uF	30%	16V
C318	1-162-306-11	CERAMIC	0.01uF	20%	16V
C321	1-124-126-00	ELECT	47uF	20%	10V
C323	1-124-927-11	ELECT	4.7uF	20%	100V
C324	1-162-842-11	CERAMIC	0.018uF	10%	16V
C325	1-124-903-11	ELECT	1uF	20%	50V
C326	1-162-290-31	CERAMIC	470PF	10%	50V
C327	1-124-126-00	ELECT	47uF	20%	10V
C328	1-162-282-31	CERAMIC	100PF	10%	50V
C329	1-124-126-00	ELECT	47uF	20%	10V
C332	1-124-927-11	ELECT	4.7uF	20%	100V
C333	1-124-925-11	ELECT	2.2uF	20%	100V
C334	1-124-907-11	ELECT	10uF	20%	50V
C335	1-124-443-00	ELECT	100uF	20%	10V
C336	1-124-126-00	ELECT	47uF	20%	10V
C337	1-124-120-11	ELECT	220uF	20%	25V
C338	1-162-306-11	CERAMIC	0.01uF	20%	16V(AEP)
C339	1-126-937-11	ELECT	4700uF	20%	16V
C342	1-126-176-11	ELECT	220uF	20%	10V
C343	1-126-176-11	ELECT	220uF	20%	10V
C344	1-162-306-11	CERAMIC	0.01uF	20%	16V
C345	1-162-306-11	CERAMIC	0.01uF	20%	16V
C346	1-162-306-11	CERAMIC	0.01uF	20%	16V
C347	1-162-306-11	CERAMIC	0.01uF	20%	16V
C349	1-162-306-11	CERAMIC	0.01uF	20%	16V
C351	1-162-282-31	CERAMIC	100PF	10%	50V
C353	1-162-282-31	CERAMIC	100PF	10%	50V
C358	1-162-282-31	CERAMIC	100PF	10%	50V
C360	1-161-375-00	CERAMIC	2200PF	30%	16V
C391	1-126-176-11	ELECT	220uF	20%	10V
C397	1-124-443-00	ELECT	100uF	20%	10V
C398	1-124-927-11	ELECT	4.7uF	20%	100V
C399	1-124-902-00	ELECT	0.47uF	20%	50V
		< FILTER >			
CF1	1-577-327-81	FILTER, CERAMIC			
CF2	1-527-870-00	FILTER			
CF3	1-577-327-81	FILTER, CERAMIC			
CF4	1-577-327-81	FILTER, CERAMIC			
		< CONNECTOR >			
* CNP304	1-695-337-31	PIN, CONNECTOR (PC BOARD) 14P			
CNP306	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
CNP307	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
		< VARIABLE CAPACITOR >			
CT1-4, CV1-4	1-151-695-11	CAP, VAR(AEP)			
CT1-4, CV1-4	1-151-696-11	CAP, VAR(US, Canadian, E, AUS)			
		< DIODE >			
D1	8-719-911-19	DIODE	1SS119		
D2	8-719-911-19	DIODE	1SS119		
D4	8-719-938-69	LED	GL3PR8(FM STEREO)		
D301	8-719-109-89	DIODE	RD5.6ESB2		
D302	8-719-109-97	DIODE	RD6.8ES-B2		
D305	8-719-901-33	DIODE	1SS133		
D306	8-719-901-33	DIODE	1SS133		
D341	8-719-901-33	DIODE	1SS133		
		< FILTER >			
FL1	1-236-022-11	FILTER, BAND PASS			
		< IC >			
IC1	8-752-050-20	IC	CXA1238S		
IC302	8-759-242-58	IC	TA8189N		
IC303	8-759-145-58	IC	uPC4558C		
IC304	8-752-055-84	IC	CXA1352AS		
IC305	8-759-820-22	IC	LA4597		

MAIN

Ref.No.	Part No.	Description	Remark
IC306	8-759-068-07	IC CD4052BCN	
IC307	8-759-912-55	IC S-81250HG	
IC313	8-759-912-77	IC LM324N	
		< JACK >	
J301	1-766-190-11	JACK(MIX MIC)	
J302	1-566-891-11	JACK(PHONES)	
		< CABLE HOLDER >	
* KH303	1-565-384-11	HOLDER, CABLE 3P	
* KH304	1-565-386-11	HOLDER, CABLE 5P	
* KH305	1-565-384-11	HOLDER, CABLE 3P	
		< COIL >	
L1	1-406-998-11	COIL, AIR-CORE(US, Canadian, E, AUS)	
L1	1-406-999-11	COIL, AIR-CORE(AEP)	
L2	1-428-775-11	COIL, AIR-CORE	
L3	1-501-646-11	ANTENNA, FERRITE-ROD (AM) (US, Canadian, E, AUS)	
L3	1-402-158-11	ANTENNA, FERRITE-ROD (AM)(AEP)	
L4	1-406-040-00	COIL (OSC)	
L101	1-414-142-11	INDUCTOR 1uH	
L201	1-414-142-11	INDUCTOR 1uH	
L303	1-414-142-11	INDUCTOR 1uH (US, Canadian, E)	
L304	1-414-142-11	INDUCTOR 1uH	
L306	1-414-142-11	INDUCTOR 1uH (US, Canadian, E)	
L306	1-410-397-21	INDUCTOR 1.1uH (AEP, AUS)	
L307	1-414-183-41	INDUCTOR 10uH (US, Canadian, E)	
L307	1-410-397-21	INDUCTOR 1.1uH (AEP, AUS)	
L309	1-410-324-11	INDUCTOR 4.7uH	
		< TRANSISTOR >	
Q1	8-729-206-25	TRANSISTOR RN1207(AEP)	
Q101	8-729-206-20	TRANSISTOR RN1202	
Q102	8-729-206-28	TRANSISTOR RN1210	
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q111	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q201	8-729-206-20	TRANSISTOR RN1202	
Q202	8-729-206-28	TRANSISTOR RN1210	
Q203	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q211	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q301	8-729-206-20	TRANSISTOR RN1202	
Q302	8-729-206-31	TRANSISTOR RN2202	
Q303	8-729-206-20	TRANSISTOR RN1202	
Q304	8-729-281-53	TRANSISTOR 2SC1815-GR	
Q305	8-729-206-20	TRANSISTOR RN1202	
Q306	8-729-206-31	TRANSISTOR RN2202	
Q307	8-729-019-01	TRANSISTOR 2SD2394-EF	
Q308	8-729-019-01	TRANSISTOR 2SD2394-EF	
Q309	8-729-206-20	TRANSISTOR RN1202	
Q310	8-729-801-84	TRANSISTOR 2SB1013-4	
Q311	8-729-206-20	TRANSISTOR RN1202	
Q312	8-729-206-31	TRANSISTOR RN2202	
Q313	8-729-206-20	TRANSISTOR RN1202	
Q314	8-729-206-20	TRANSISTOR RN1202	
		< RESISTOR >	
R3	1-249-421-11	CARBON 2.2K 5%	1/4W
R5	1-249-426-11	CARBON 5.6K 5%	1/4W
R6	1-249-441-11	CARBON 100K 5%	1/4W
R7	1-249-415-11	CARBON 680 5%	1/4W
R9	1-249-441-11	CARBON 100K 5%	1/4W
R10	1-249-404-00	CARBON 82 5%	1/4W
R11	1-249-427-11	CARBON 6.8K 5%	1/4W
R12	1-249-427-11	CARBON 6.8K 5%	1/4W
R13	1-247-807-11	CARBON 100 5%	1/4W
R14	1-249-429-11	CARBON 10K 5%	1/4W
R15	1-247-887-00	CARBON 220K 5%	1/4W
R16	1-247-887-00	CARBON 220K 5%	1/4W
R17	1-249-421-11	CARBON 2.2K 5%	1/4W
R21	1-249-410-11	CARBON 270 5%	1/4W
R24	1-249-423-11	CARBON 3.3K 5%	1/4W
R25	1-249-415-11	CARBON 680 5%	1/4W
R28	1-247-807-11	CARBON 100 5%	1/4W
R29	1-247-807-11	CARBON 100 5%	1/4W
R30	1-249-429-11	CARBON 10K 5%	1/4W(AEP)
R101	1-249-409-11	CARBON 220 5%	1/4W
R102	1-249-409-11	CARBON 220 5%	1/4W
R103	1-247-807-11	CARBON 100 5%	1/4W
R104	1-247-885-00	CARBON 180K 5%	1/4W
R105	1-249-427-11	CARBON 6.8K 5%	1/4W
R106	1-249-427-11	CARBON 6.8K 5%	1/4W
R107	1-247-885-00	CARBON 180K 5%	1/4W
R108	1-247-890-11	CARBON 300K 5%	1/4W
R109	1-247-811-31	CARBON 150 5%	1/4W
R110	1-249-438-11	CARBON 56K 5%	1/4W
R111	1-249-429-11	CARBON 10K 5%	1/4W
R112	1-249-421-11	CARBON 2.2K 5%	1/4W
R113	1-249-428-11	CARBON 8.2K 5%	1/4W
R116	1-249-420-11	CARBON 1.8K 5%	1/4W
R117	1-247-862-11	CARBON 20K 5%	1/4W
R119	1-247-807-11	CARBON 100 5%	1/4W
R120	1-249-432-11	CARBON 18K 5%	1/4W
R121	1-249-429-11	CARBON 10K 5%	1/4W
R122	1-249-439-11	CARBON 68K 5%	1/4W
R123	1-249-430-11	CARBON 12K 5%	1/4W
R126	1-249-432-11	CARBON 18K 5%	1/4W

Ref. No.	Part No.	Description			Remark
R127	1-249-441-11	CARBON	100K	5%	1/4W
R130	1-249-431-11	CARBON	15K	5%	1/4W
R131	1-249-425-11	CARBON	4.7K	5%	1/4W
R132	1-249-404-00	CARBON	82	5%	1/4W
R133	1-247-887-00	CARBON	220K	5%	1/4W
R134	1-247-887-00	CARBON	220K	5%	1/4W
R153	1-249-419-11	CARBON	1.5K	5%	1/4W
R154	1-249-435-11	CARBON	33K	5%	1/4W
R155	1-247-895-00	CARBON	470K	5%	1/4W
R157	1-249-417-11	CARBON	1K	5%	1/4W
R158	1-249-417-11	CARBON	1K	5%	1/4W
R201	1-249-409-11	CARBON	220	5%	1/4W
R202	1-249-409-11	CARBON	220	5%	1/4W
R203	1-247-807-11	CARBON	100	5%	1/4W
R204	1-247-885-00	CARBON	180K	5%	1/4W
R205	1-249-427-11	CARBON	6.8K	5%	1/4W
R206	1-249-427-11	CARBON	6.8K	5%	1/4W
R207	1-247-885-00	CARBON	180K	5%	1/4W
R208	1-247-890-11	CARBON	300K	5%	1/4W
R209	1-247-811-31	CARBON	150	5%	1/4W
R210	1-249-438-11	CARBON	56K	5%	1/4W
R211	1-249-429-11	CARBON	10K	5%	1/4W
R212	1-249-421-11	CARBON	2.2K	5%	1/4W
R213	1-249-428-11	CARBON	8.2K	5%	1/4W
R216	1-249-420-11	CARBON	1.8K	5%	1/4W
R217	1-247-862-11	CARBON	20K	5%	1/4W
R219	1-247-807-11	CARBON	100	5%	1/4W
R220	1-249-432-11	CARBON	18K	5%	1/4W
R221	1-249-429-11	CARBON	10K	5%	1/4W
R222	1-249-439-11	CARBON	68K	5%	1/4W
R223	1-249-430-11	CARBON	12K	5%	1/4W
R226	1-249-432-11	CARBON	18K	5%	1/4W
R227	1-249-441-11	CARBON	100K	5%	1/4W
R230	1-249-431-11	CARBON	15K	5%	1/4W
R231	1-249-425-11	CARBON	4.7K	5%	1/4W
R232	1-249-404-00	CARBON	82	5%	1/4W
R233	1-247-887-00	CARBON	220K	5%	1/4W
R234	1-247-887-00	CARBON	220K	5%	1/4W
R253	1-249-419-11	CARBON	1.5K	5%	1/4W
R254	1-249-435-11	CARBON	33K	5%	1/4W
R255	1-247-895-00	CARBON	470K	5%	1/4W
R257	1-249-417-11	CARBON	1K	5%	1/4W
R258	1-249-417-11	CARBON	1K	5%	1/4W
R303	1-249-423-11	CARBON	3.3K	5%	1/4W
R304	1-247-903-00	CARBON	1M	5%	1/4W
R305	1-249-401-11	CARBON	47	5%	1/4W
R307	1-249-417-11	CARBON	1K	5%	1/4W
R308	1-249-423-11	CARBON	3.3K	5%	1/4W
R310	1-249-433-11	CARBON	22K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R311	1-249-425-11	CARBON	4.7K	5%	1/4W
R312	1-247-818-11	CARBON	300	5%	1/4W
R314	1-249-429-11	CARBON	10K	5%	1/4W
R317	1-249-389-11	CARBON	4.7	5%	1/4W
R320	1-249-437-11	CARBON	47K	5%	1/4W
R321	1-249-425-11	CARBON	4.7K	5%	1/4W
R322	1-247-807-11	CARBON	100	5%	1/4W
R324	1-249-425-11	CARBON	4.7K	5%	1/4W
R325	1-249-425-11	CARBON	4.7K	5%	1/4W
R326	1-249-419-11	CARBON	1.5K	5%	1/4W
R327	1-249-437-11	CARBON	47K	5%	1/4W
R328	1-249-429-11	CARBON	10K	5%	1/4W
R329	1-249-441-11	CARBON	100K	5%	1/4W
R330	1-249-429-11	CARBON	10K	5%	1/4W
R331	1-249-429-11	CARBON	10K	5%	1/4W
R332	1-247-807-11	CARBON	100	5%	1/4W
R335	1-249-417-11	CARBON	1K	5%	1/4W
R336	1-247-884-11	CARBON	160K	5%	1/4W
R337	1-249-401-11	CARBON	47	5%	1/4W
R338	1-249-418-11	CARBON	1.2K	5%	1/4W
R339	1-249-418-11	CARBON	1.2K	5%	1/4W(AEP)
R340	1-249-437-11	CARBON	47K	5%	1/4W
⚠R341	1-219-149-11	FUSIBLE	1	5%	1/4W F
R342	1-249-409-11	CARBON	220	5%	1/4W
R343	1-249-429-11	CARBON	10K	5%	1/4W
R344	1-249-425-11	CARBON	4.7K	5%	1/4W
R345	1-249-437-11	CARBON	47K	5%	1/4W
R346	1-249-441-11	CARBON	100K	5%	1/4W
R348	1-247-811-31	CARBON	150	5%	1/4W
R350	1-249-425-11	CARBON	4.7K	5%	1/4W
R361	1-247-807-11	CARBON	100	5%	1/4W
R362	1-249-429-11	CARBON	10K	5%	1/4W
R364	1-249-429-11	CARBON	10K	5%	1/4W
R365	1-247-903-00	CARBON	1M	5%	1/4W
R366	1-249-441-11	CARBON	100K	5%	1/4W
R367	1-249-417-11	CARBON	1K	5%	1/4W
R396	1-249-429-11	CARBON	10K	5%	1/4W(AEP)
R398	1-249-429-11	CARBON	10K	5%	1/4W(AEP)

< VARIABLE RESISTOR >

RV1	1-238-601-11	RES, ADJ, CARBON 22K(VCO)
RV301	1-223-644-11	RES, VAR, CARBON 50K(BALANCE)
RV302	1-223-644-11	RES, VAR, CARBON 50K (ROTARY EQUALIZER 100kHz)
RV303	1-223-644-11	RES, VAR, CARBON 50K (ROTARY EQUALIZER 1kHz)
RV304	1-223-644-11	RES, VAR, CARBON 50K (ROTARY EQUALIZER 10kHz)
RV305	1-223-645-11	RES, VAR, CARBON 500K/500K(MEGA BASS)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN POWER TC LEAF

Ref. No.	Part No.	Description		Remark
		< SWITCH >		
S1	1-692-252-11	SWITCH, LEVER SLIDE(BAND)		
S301	1-571-547-11	SWITCH, SLIDE(FM MODE/ISS)(AEP)		
S302	1-692-964-11	SWITCH, SLIDE(REC/PB)		
		< TRANSFORMER >		
T1	1-404-355-00	TRANSFORMER, IF		
T301	1-433-346-11	TRANSFORMER, BIAS OSCILLATOR		
**********				
*	1-652-205-11	POWER BOARD		
		**********		
	1-533-233-11	HOLDER, FUSE		
*	3-376-847-01	CUSHION, SARANET		
		< CAPACITOR >		
C901	1-101-005-00	CERAMIC	22000PF	50V
C902	1-101-005-00	CERAMIC	22000PF	50V
C903	1-101-005-00	CERAMIC	22000PF	50V
C904	1-101-005-00	CERAMIC	22000PF	50V
C906	1-162-287-31	CERAMIC	270PF 10%	50V(AEP, AUS)
		< CONNECTOR >		
* CNP901	1-691-574-11	PIN, CONNECTOR (PC BOARD)		3P
* CNP902	1-691-573-11	PIN, CONNECTOR (PC BOARD)		2P
		< DIODE >		
D901	8-719-046-47	DIODE	1N5401TM	
D902	8-719-046-47	DIODE	1N5401TM	
D903	8-719-046-47	DIODE	1N5401TM	
D904	8-719-046-47	DIODE	1N5401TM	
		< FUSE >		
⚠F901	1-576-107-11	FUSE (3.15A/250V)(US, Canadian, E)		
⚠F901	1-532-286-00	FUSE (T2.5AL)(AEP, AUS)		
		< JACK >		
⚠J901	1-540-009-11	INLET, AC(AC IN~)(US, Canadian)		
⚠J901	1-526-838-11	INLET, AC 2P(AC IN~)(AEP, AUS)		
⚠J901	1-526-818-11	INLET, AC(AC IN~)(E)		
		< COIL >		
L901	1-410-397-21	FERRITE BEAD INDUCTOR(US, Canadian, E)		
L902	1-410-397-21	FERRITE BEAD INDUCTOR		
L903	1-410-397-21	FERRITE BEAD INDUCTOR(AEP, AUS)		
		< LINE FILTER >		
⚠LF901	1-424-150-11	TRANSFORMER, LINE FILTER		

Ref. No.	Part No.	Description		Remark
		< RESISTOR >		
R901	1-247-807-11	CARBON	100 5%	1/4W
		< TRANSFORMER >		
⚠T901	1-426-759-11	TRANSFORMER, POWER(US, Canadian)		
⚠T901	1-426-768-11	TRANSFORMER, POWER(AEP)		
⚠T901	1-426-759-11	TRANSFORMER, POWER(E)		
⚠T901	1-426-769-11	TRANSFORMER, POWER(AUS)		
**********				
*	1-652-202-11	TC LEAF BOARD		
		**********		
		< CAPACITOR >		
C601	1-124-257-00	ELECT	2.2uF 20%	50V
C602	1-126-163-11	ELECT	4.7uF 20%	50V
		< CONNECTOR >		
* CNP601	1-695-110-11	PIN, CONNECTOR (PC BOARD)		8P
* CNP602	1-695-106-11	PIN, CONNECTOR (PC BOARD)		4P
		< DIODE >		
D601	8-719-901-33	DIODE	1SS133	
D602	8-719-901-33	DIODE	1SS133	
D603	8-719-901-33	DIODE	1SS133	
D604	8-719-901-33	DIODE	1SS133	
D605	8-719-901-33	DIODE	1SS133	
		< TRANSISTOR >		
Q601	8-729-801-84	TRANSISTOR	2SB1013-4	
Q602	8-729-206-20	TRANSISTOR	RN1202	
Q603	8-729-206-20	TRANSISTOR	RN1202	
Q604	8-729-115-30	TRANSISTOR	2SK105A-30	
Q605	8-729-206-20	TRANSISTOR	RN1202	
Q606	8-729-206-20	TRANSISTOR	RN1202	
Q607	8-729-206-20	TRANSISTOR	RN1202	
Q608	8-729-206-31	TRANSISTOR	RN2202	
Q610	8-729-206-20	TRANSISTOR	RN1202	
		< RESISTOR >		
R601	1-249-441-11	CARBON	100K 5%	1/4W
R602	1-249-418-11	CARBON	1.2K 5%	1/4W
R603	1-249-427-11	CARBON	6.8K 5%	1/4W
R604	1-249-424-11	CARBON	3.9K 5%	1/4W
R605	1-249-417-11	CARBON	1K 5%	1/4W
R607	1-249-425-11	CARBON	4.7K 5%	1/4W
R608	1-249-425-11	CARBON	4.7K 5%	1/4W
R609	1-249-425-11	CARBON	4.7K 5%	1/4W
R610	1-249-417-11	CARBON	1K 5%	1/4W

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Ref.No.	Part No.	Description	Remark
R611	1-249-423-11	CARBON 3.3K 5% 1/4W	
		< VARIABLE RESISTOR >	
RV601	1-230-495-11	RES, ADJ, CARBON 2.2K(TAPE SPEED)	
		< SWITCH >	
S601	1-696-515-11	SWITCH, LEAF(MOTOR)(DECK-A)	
S602	1-696-515-11	SWITCH, LEAF(HI-SPEED)(DECK-A)	
S603	1-696-515-11	SWITCH, LEAF(MOTOR)(DECK-B)	
S604	1-696-515-11	SWITCH, LEAF(PLAY)(DECK-B)	
**********			
*	1-652-211-11	VOLUME BOARD	
		**********	
		< CABLE HOLDER >	
* KH804	1-565-384-11	HOLDER, CABLE 3P	
		< SWITCH >	
S811	1-572-198-11	SWITCH, KEY BOARD(VOLUME -)	
S812	1-572-198-11	SWITCH, KEY BOARD(VOLUME +)	
**********			
		MISCELLANEOUS	
		**********	
12	1-467-786-11	COMMANDER, STANDARD (RMT-C550)	
65	1-765-667-11	WIRE, PARALLEL (FFC) (14 CORE)	
66	1-765-665-11	WIRE, PARALLEL (FFC) (9 CORE)	
114	1-452-732-11	MAGNET	
155	1-559-620-11	CORD (WITH CONNECTOR)	
⚠305	8-848-337-11	DEVICE, OPTICAL KSS-212B	
306	X-2625-770-1	CHASSIS ASSY (MB)(RP), MOTOR (INCLUDING M402)(SPINDLE)	
ANT901	1-501-383-21	ANTENNA, TELESCOPIC	
HE901	1-543-876-11	HEAD (ERASE)(DECK-B)	
HP902	1-543-628-11	HEAD, MAGNETIC(RECORD/PLAYBACK)(DECK-A)	
HRP901	1-543-714-11	HEAD, MAGNETIC (REC/PB)(DECK-B)	
M401	X-4920-924-1	MOTOR ASSY	
M701	X-2625-769-1	GEAR ASSY(MB)(RP), MOTOR(SLED)	
S702	1-692-960-11	SWITCH, PUSH (1 KEY)(OPEN/CLOSE)	
SP101	1-504-269-21	SPEAKER (10CM)(L-CH)	
SP102	1-529-058-11	BUZZER(L-CH)	
SP201	1-504-269-21	SPEAKER (10CM)(R-CH)	
SP202	1-529-058-11	BUZZER(R-CH)	
**********			

Ref.No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-467-786-11	COMMANDER, STANDARD (RMT-C550)	
⚠	1-557-287-11	CORD, POWER(E)	
⚠	1-575-131-11	CORD, POWER SUPPLY(AEP)	
⚠	1-590-147-11	CORD, POWER(Canadian)	
⚠	1-690-952-21	CORD, POWER(US)	
⚠	1-696-819-11	CORD, POWER(AUS)	
	3-758-443-21	MANUAL, INSTRUCTION(ENGLISH) (US, Canadian, E, AUS)	
	3-758-443-31	MANUAL, INSTRUCTION(FRENCH)(Canadian)	
	3-758-443-51	MANUAL, INSTRUCTION(ENGLISH/FRENCH/ GERMAN/SPANISH)(AEP)	
	3-758-443-61	MANUAL, INSTRUCTION(DUTCH/SWEDISH/ ITALIAN/PORTUGUESE)(AEP)	
	3-758-443-71	MANUAL, INSTRUCTION(SPANISH)(E)	
*	3-912-468-01	CUSHION (TOP)	
*	3-912-469-01	CUSHION (BOTTOM)	
*	3-912-477-01	INDIVIDUAL CARTON(US)	
*	3-912-478-01	INDIVIDUAL CARTON(Canadian, AUS)	
*	3-912-479-01	INDIVIDUAL CARTON(E)	
*	3-912-480-01	INDIVIDUAL CARTON(AEP)	
**********			

HARDWARE LIST

#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#2	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S
#3	7-685-547-19	SCREW +BTP 3X10 TYPE2 N-S
#4	7-682-548-09	SCREW +B 3X8
#5	7-621-770-87	SCREW +P 2.6X5
#6	7-685-133-19	SCREW +P 2.6X6 TYPE2
#7	7-685-649-79	SCREW +BVTP 3X14 TYPE2 N-S
#8	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#9	7-685-132-19	SCREW +P 2.6X5 TYPE2 NON-SLIT
#10	7-685-144-11	SCREW +P 3X5 TYPE2 NON-SLIT
#11	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S
#12	7-682-548-04	SCREW +BVTT 3X8 (S)
#13	7-621-255-15	SCREW +P 2X3

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